

**THE OFFICE OF REGULATORY STAFF
DIRECT TESTIMONY
OF
DR. DOUGLAS H. CARLISLE
OCTOBER 3, 2013**



**DOCKET NO. 2013-201-W/S
APPLICATION OF UTILITIES SERVICES
OF SOUTH CAROLINA, INC., FOR
ADJUSTMENT OF RATES AND
CHARGES AND MODIFICATIONS OF
CERTAIN TERMS AND CONDITIONS
FOR THE PROVISION OF WATER
AND SEWER SERVICE**

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Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My purpose is to recommend the appropriate range for return on equity for Utilities Services of South Carolina, Inc. ("USSC" or "the Company"). I will present my conclusions and their bases for the appropriate return on equity for USSC.

Q. WHAT STANDARDS GOVERN RATE OF RETURN?

The Supreme Court of the United States set standards in two landmark decisions.

In the first case, involving a water company, the Court declared:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its duties.¹

¹ *Bluefield Water Works & Improvement Company. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692-3 (1923).

1 This decision, the Bluefield decision was later reinforced by the decision in
2 another case, Federal Power Commission v. Hope Natural Gas Company:

3 [T]he fixing of “just and reasonable” rates, involves a balancing of the
4 investor and consumer interests.... From the investor or company point of
5 view it is important that there be enough revenue not only for operating
6 expenses but also for the capital cost of the business. These include
7 service on the debt and dividends on the stock.... By that standard the
8 return to the equity owner should be commensurate with returns on
9 investments in other enterprises having corresponding risks. That return,
10 moreover, should be sufficient to assure confidence in the financial
11 integrity of the enterprise, so as to maintain its credit and attract capital.²
12

13 **Q. DOES USSC HAVE TRADED COMMON STOCK?**

14 A. No, its stock is entirely held by Utilities, Inc. of Northbrook, Illinois, which also
15 has no publicly traded stock. Utilities, Inc. was purchased by Corix Utilities in 2012.
16 Corix is owned by the British Columbia Investment Management Corporation.

17 **Q. IF NEITHER THE COMPANY NOR ITS PARENT HAS TRADED STOCK, HOW**
18 **DID YOU PERFORM YOUR ANALYSIS TO RECOMMEND A RETURN ON**
19 **EQUITY?**

20 A. To develop a fair rate of return recommendation for USSC, I evaluated the return
21 requirements of investors on the common stock of two groups: publicly held water and
22 sewerage service companies and a Comparable Earnings Model (“CEM”) group. I then
23 applied to the first group, two well-known and generally accepted methods for
24 determining a recommended return on equity, the Discounted Cash Flow (“DCF”) Model
25 and Capital Asset Pricing Methods (“CAP-M”). I applied the CEM to the CEM group.

26 **Q. WHY DID YOU EXAMINE DATA ON COMPANIES WITH TRADED STOCK?**

² *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591, 603 (1944).

1 A. First, USSC has asked to be treated as a publicly traded company by applying for
2 a rate-based return-on-equity proceeding. Second, publicly traded water utilities are,
3 after all, in the same line of business as USSC and so share similar risks. Third, data is
4 far more readily available about publicly traded companies, so it is practical to use them.

5 **Q. HOW DID YOU SELECT THESE COMPANIES AND GROUPS?**

6 A. For my DCF analysis I selected those companies classified as “water utilities” by
7 Value Line or by *Yahoo! Finance* that engage in water distribution to customers and
8 obtain most of their revenues from utility services. For my CEM analysis I selected
9 companies with comparable β 's to those of the companies in my DCF Proxy Group.

10 **Q. WHAT CAPITAL STRUCTURE DID YOU USE FOR YOUR ANALYSIS OF**
11 **USSC?**

12 A. I used the structure in Ms. Pauline Ahern's testimony at Exhibit PMA-1,
13 Schedule 1, but not the cost rates. The Company's debt is higher than it would appear at
14 first glance. The reason for this is Utilities, Inc.'s interest-only borrowing. Effectively,
15 interest has been accumulating and will form a new basis to be repaid, so it acts like
16 principle. I will discuss the ramifications of the interest-only loan later in my testimony.

17 **Q. WHAT IS THE MOST IMPORTANT OVERALL CONSIDERATION IN**
18 **DETERMINING AN APPROPRIATE RETURN ON EQUITY?**

19 A. Determining comparability is the most important consideration. Under the
20 Comparable Earnings Model, which I use, there is a set of assumptions about production
21 and capital inputs. Under all other models, there are various assumptions about risk and
22 these models all focus on adjusting risk to ascertain what companies are comparable to a
23 regulated utility. As a preliminary step, each of these risk-adjustment models identifies

1 some benchmark or standard that is reasoned to be central to investors' choices. For
2 example, under the DCF, the stream of benefits or cash-flow from dividends, is central.
3 Under the CAP-M, the Risk-Free Rate (" R_f ") takes center stage. I will discuss these
4 methods in more detail individually, later in my testimony.

5 **Q. WHAT IS THE ROLE THAT ASSESSING RISK PLAYS IN ESTIMATING A**
6 **FAIR RETURN FOR USSC?**

7 A. For any regulated utility, one must determine the risks that the company faces in
8 order to estimate a fair return. An appropriate return reflects the return investors require
9 to incur the risk that they face. Economic principles dictate that the higher the risk, the
10 higher the expected return. So too, the lower the risk, the lower the required return. A
11 fair return, then, compensates investors proportionately to the risk they face. A fair
12 return balances investors' and customers' interests. Too high a return places a burden on
13 customers and over-rewards investors. Too low a return places too high a burden on the
14 utility.

15 **DCF Analysis**

16 **Q. WHAT IS THE BASIS FOR THE DCF MODEL?**

17 A. This model's basic premise is that investors value stocks based on the stream of
18 cash flows they can enjoy for the indefinite future and that the only certain flow of cash is
19 the value of dividends received. The DCF is a perpetuity, so cash must flow indefinitely;
20 therefore, in the long run, dividend growth cannot exceed company growth. If dividends
21 grew faster than the underlying company growth, the dividend would eventually become
22 unsustainable and the model's basic assumptions would be violated. The growth in
23 dividends, therefore, cannot exceed the growth in earnings. In fact, all indicators of

1 growth must, in the long run, grow at rates compatible with each other. The DCF model
2 is expressed by this formula:

$$K = D_1/P_0 + g;$$

4 where K = cost of equity capital (ROE); D_1 = current yearly Dividends per Share
5 (“DPS”); P_0 = purchase price; and g = growth.

6 **Q. HOW DO YOU TAKE INTO ACCOUNT THE ASSUMPTIONS ABOUT**
7 **GROWTH IN YOUR ANALYSIS?**

8 A. There are several steps for applying the assumptions of the DCF Model. Each
9 strategy, in logical order, points to the next.

10 First, the DCF is a long-term model, so some temporary departures from a
11 straight-line estimate of ROE are to be expected. This reasoning implies that having
12 several indicators of growth is better than having just one. My analysis uses four
13 indicators: 1) Earnings per Share (“EPS”) (Exhibit DHC-2); 2) Book Value per Share
14 (“BVPS”) (Exhibit DHC-3); 3) Revenue or Earnings (Exhibit DHC-4); and, 4) Dividends
15 per Share (Exhibit DHC-5).

16 Second, my analysis adheres to a steady-state model by using several periods to
17 calculate historical trends and to dampen any temporary divergences. This method
18 provides a more reliable guide to long-term growth. For that reason, I have used three-
19 five- and ten-year averages/means and medians. This approach lessens the impact of any
20 transient phenomena. Such reasoning appeals to common sense. For example, an
21 investor would need some convincing evidence to believe that a company whose earnings
22 and book value having been growing at 5% would suddenly grow at 25%. On the other
23 hand, true departures from the trend have to be recognized.

1 Third, my approach recognizes the importance of analysts' opinions. Although it
2 might seem that analysts make their living discovering new trends or departures from old
3 ones, their predictions also moderate analyses based strictly on historical data and add
4 some balance to the estimation of growth. Investors know about analysts and may
5 consult them and be influenced by estimates.

6 **Q. HOW DOES YOUR DCF ANALYSIS CONFORM TO THE MODEL WITH**
7 **REGARD TO THE OTHER TERMS OF THE BASIC DCF EQUATION?**

8 A. The term, D_1/P_0 , finds a simple expression as Dividend Yield. A very narrow
9 interpretation of the formula would insist upon using a price from the previous year and
10 determining the yearly dividend paid as of a year later. Investors know about companies'
11 histories of dividend increases, however; and they expect increases if a company has a
12 history of increasing dividends. Companies announce their intention to maintain or
13 increase their dividends during the year and price data tends to be an average of prices
14 over time (as in Exhibit DHC-9), so the current dividend yield reflects what has happened
15 leading up to the current moment. Thus the problem with the dividend yield is not
16 knowing what it is at a given moment, but rather that investors expect it to grow. Since
17 investors know that any given company may announce an increase in its dividend in the
18 upcoming twelve months after the dividend yield information is available, a simple
19 convention to recognize such possible increases is to multiply the yield by half-again the
20 growth rate, producing this modified equation:

$$K = ([D_1/P_0] * (1 + (\frac{1}{2} g))) + g$$

22 While this equation may seem to violate the assumptions of the DCF by having
23 dividends outpace growth or by restricting dividends to a growth rate below companies'

1 growth rates, in fact it is consistent with the model. Expectations of growth are simply
2 applied to dividend yield in this equation. Dividend yield is brought into balance with
3 growth, because expectations are incorporated into both parts. The difference between
4 how expectations are incorporated is that, for growth, they are incorporated in the
5 development of the “g” number, whereas, in the dividend yield, they are incorporated in
6 the equation itself.

7 **Q. WHAT DOES YOUR DCF ANALYSIS INDICATE?**

8 A. My DCF analysis indicates that the appropriate ROE for the Company is 9.60%.
9 This number came partly from increased future dividends and dividend yields, partly
10 pushed by changes in capital gains, but also came from the steady rate of increase and
11 forecasted rates of increase in Sales, BVPS, and EPS (Exhibit DHC-6).

12 As discussed earlier, the effect of using multiple periods dampens the recent
13 three-year trend EPS, which would have produced excessively high ROE’s, had it been
14 used alone. The long-term growth is slower than the short-term growth. The latter shows
15 a sudden jump, and the median result shows that the greatest jumps came from the larger
16 companies. The two largest companies, American States Water and American Water
17 Works, had the highest gains in EPS, followed by SJW Corporation and another large
18 company, Aqua America. All of these EPS results are shown at Exhibit DHC-2, p.2 of 3.

19 **CEM Analysis**

20 **Q. WHAT IS THE BASIC PREMISE OF THE CEM?**

21 A. This Model focuses on the costs of goods and services that generate earnings. For
22 this reason, CEM analyses look at changes in book value. Changes in book value
23 indicate a greater capacity to produce.

1 **Q. WHAT ARE THE MAJOR CONSIDERATIONS IN IMPLEMENTING THE CEM**
2 **AND HOW DID YOU ADDRESS THEM?**

3 A. The Model does not indicate a single approach to ascertaining what is comparable
4 and so analyses often look at great quantities of data over long periods of time. Analyses
5 may use whole sectors of the economy, several sectors of the economy, or even stock
6 indices and show several decades of results. While such approaches mitigate threats to
7 the Model, there is no single standard for comparability; and so conclusions from the data
8 tend to be judgmental. Although there is nothing wrong with applying judgment to
9 interpret results, I have elected to use a more formulaic approach in order to make my
10 analysis more transparent.

11 The standard I used to select comparable stocks was the range of β that Value
12 Line provides for the companies in my DCF Proxy Group. Leaving aside academic
13 arguments about its predictive value, β has intuitive appeal because stocks whose prices
14 vary in the same manner as those of traded water and water and sewer companies
15 probably have something in common with regard to their earning capacity. To further
16 ensure comparability, I selected only stocks whose β 's for ten years did not stray very far
17 out of the range of my DCF Proxy Group's. This approach produced a CEM Proxy
18 Group that was fairly large – having 137 companies – and that covered several market
19 sectors (Exhibit DCH-13).

20 **Q. HOW DID YOU APPLY YOUR RATIONALE AND PRECAUTIONS WITH**
21 **REGARD TO THE CEM?**

22 A. I determined the β 's of the utility companies' stocks composing my DCF Proxy
23 Group (Exhibit DHC-7). I then used Value Line's database to select companies whose

1 β 's fell within this range and eliminated companies in the financial services sector.
2 Removing financial companies was an application of judgment based on my conclusion
3 that such companies would either lag the overall market or enjoy large rebounds due to
4 the large role the financial sector played in the recession from which our country is still
5 recovering. Either lagging or surpassing otherwise comparable companies would make
6 the financial companies atypical and reduce comparability.

7 Having obtained a variety of companies with comparable β 's, I examined the ten-
8 year β -ranges of the companies. Since the overall market has a β of "1," it is logical that
9 the CEM Proxy Group should not contain any companies that were as risky as the overall
10 market, so I eliminated any companies that had reached that level, which is .15 above the
11 highest company in my DCF Proxy Group (Exhibit DHC-7). I placed a ten-year β -floor
12 of less than .15 below the lowest company in my DCF Proxy Group. The selection
13 procedures produced a CEM Proxy Group of 137 companies with many different lines of
14 business among them.

15 **Q. WHAT INFORMATION ABOUT THESE CEM PROXY GROUP COMPANIES**
16 **DID YOU OBTAIN?**

17 A. I obtained the ten-year book value growth for each company and the Value Line
18 projected book value growth. I then calculated my CEM results from this group, using
19 several different procedures.

20 **Q. WHAT WERE THESE PROCEDURES AND WHY DID YOU USE THEM?**

21 A. I first calculated the simple average or mean book value growth of the CEM
22 Proxy Group, but I was aware that a few companies had rather extreme values. As a
23 precaution against allowing a few companies to exert too much influence on the

1 calculation, I included the median of the values and then calculated the average of the
2 mean and median growth in book value, for the historical ten-year period and for the
3 predicted growth (Exhibit DHC-13).

4 As a defense against variation in book value growth among different levels of β , I
5 divided the CEM Proxy Group into different β -ranges – stratifying the Group – by taking
6 the mean and median of each range and then averaging the ranges. I averaged the
7 stratified and unstratified results. To reflect the distribution of β 's within the DCF Proxy
8 Group, I weighted the stratified results. I averaged this result with the previous result.

9 The average of the historical and projected book value results is a 10.174%
10 growth in book value. The average of the stratified historical and projected book value
11 results is 9.713%. These two results averaged together yield 9.943%. The average of the
12 weighted stratified calculation was 9.262%. Averaging this number with 9.943%
13 produces 9.603%, which is my CEM result (Exhibit DHC-13, p. 5 of 5). It should be
14 noted that stratification receives more emphasis using my procedure as a means of
15 ensuring comparability with water companies with traded stock.

16 **Q. IS THIS METHODOLOGY BASED MOSTLY ON STRESSING THE**
17 **IMPORTANCE OF β ?**

18 A. No. Although β plays a major role in the analysis, the CEM Proxy Group
19 contains a very wide diversity of companies, from IBM to PetSmart, from Microsoft to
20 Johnson & Johnson. The CEM is influenced by several sectors of business, each with its
21 own characteristics apart from how its stocks co-vary with the market. Furthermore, this
22 methodology stresses book value growth, as opposed to dividends or the hurdle- or
23 risk-free-rate.

1 **CAP-M Analysis**

2 **Q. WHAT IS THE BASIC PREMISE OF THE CAP-M?**

3 A. This model assumes that there is a knowable R_f , Market Rate of Return (" R_m "),
4 and Equity Risk Premium ("ERP"). In this respect, it belongs to a family of models and
5 methods for which a risk premium is central. The CAP-M uses the β statistic to adjust
6 the ERP for the risk of particular companies, sectors, or even portions of companies.

7 **Q. HOW IS THE PREMISE REALIZED IN CAP-M ANALYSIS?**

8 A. At the basic, general level, CAP-M uses the following formula:

9
$$K = R_f + (\beta * (R_m - R_f)),$$

10 Where K is ROE and the other notations are those I have discussed. The innermost
11 parentheses contain the ERP, which is adjusted for risk by β , with the assumption that all
12 risks not captured by β can be diversified away.

13 **Q. WHAT ARE SOME OF THE ISSUES SURROUNDING THE CAP-M AND ITS**
14 **APPLICATION?**

15 A. There have been debates about whether β properly measures systematic risk, with
16 some researchers finding that it does not and others finding that it does. Some people
17 have taken issue with whether β should be adjusted, which is not an issue with my
18 analysis, since I use Value Line's adjusted β 's. Another set of issues turns on whether
19 the R_m is properly measured by the source, SBBI (a.k.a. "the Ibbotson book") or whether
20 different periods of time should be used. Within that debate is another one on whether to
21 use the arithmetic mean ("simple average") or the geometric mean (or "compound annual
22 growth rate"). I use the latter because it reflects the long-term returns that stocks could
23 actually have brought an investor.

1 Although those are the prominent debates, there is another issue concerning the
2 third term of the CAP-M equation, R_f . Although one could argue about whether highly
3 rated corporate bonds are truly risk-free or whether one should use longer- or
4 shorter-term Treasury securities, such discussions are completely overshadowed by the
5 question of whether actions by the Federal Reserve Board have masked or distorted
6 market forces in such a way or in such a degree that the R_f has been unknowable.

7 **Q. DO YOU BELIEVE THAT THE ISSUE WITH THE R_f IN THE CAP-M HAS**
8 **BEEN OVERCOME?**

9 A. While it may have been a concern when the Federal Reserve initiated its “Twist”
10 policy of buying long-term Treasury securities, I believe that this concern is rapidly
11 disappearing. My reasoning is twofold. First, there are clear signs that the Federal
12 Reserve’s policy is coming to an end, albeit a very gradual one, and there are definite
13 market responses anticipating the end of the policy. Second, it is possible that the policy
14 will end sooner for longer-term securities than for shorter-term ones. This second reason
15 is that the “Twist” policy came about later than the initial intervention and the market has
16 already anticipated an exit from it as demonstrated by the increasing steepness of the
17 yield curve (see Exhibit DHC-11). Since I consider the CAP-M to be more accurate
18 either when there is notable interaction between idiosyncratic risk and β^3 or in the
19 long-run⁴, recent reactions to the mere possibility of a slowing of Federal Reserve
20 purchases, sometimes called the “taper,” indicate that it is not too soon to use the CAP-M
21 again.

³ “Beta Is Still Useful!” a paper by Yexiao Xu and Yihua Zhao, School of Management, The University of Texas at Dallas, November 2011 revision.

⁴ Ravi Jagannathan and Ellen R. McGrattan, “The CAPM Debate,” Federal Reserve Bank of Minneapolis Quarterly Review, Vol. 19, No. 4, fall 1995, pp. 2-17.

1 All professional economists who were polled by Blue Chip responded that they
2 thought the Taper would begin this year⁵. In other words, almost all of the economists
3 thought that Quantitative Easing – the Federal Reserve’s purchasing of \$85 billion per
4 month in Treasury and mortgage-backed securities – would begin to end this year. A
5 decrease in purchases of Treasury securities by the Federal Reserve will decrease their
6 price and increase their interest rates. With higher governmental rates, the hurdle that
7 corporate bonds will have to clear in order to attract investors will be higher, so it is
8 likely corporate bond rates will rise, too. For the CAP-M, the effect upon Treasury
9 securities is the more important and more direct effect of the termination of Federal
10 Reserve policy. Market forces will once again set the R_f , and we will have a good idea of
11 what the ERP is. In fact, the interest rates of Treasury bonds are already starting rise,
12 which indicates that the market is “pricing in” this upcoming change.

13 **Q. HOW DID YOU PERFORM YOUR CAP-M?**

14 A. For the R_f I used the projected 30-year Treasury bond yield, using a projection
15 from a poll of economists conducted by Blue ChipTM. This consensus forecast looks 18
16 months into the future. It is currently 4.1% (Exhibit DHC-8). For the R_m , I used the
17 compound average growth rate for stocks as published in Stocks, Bonds, Bills and
18 Inflation, 2013. I averaged the returns for the deciles of company size and obtained an
19 average (geometric mean or compound annual growth rate) of 11.1% (Exhibit DHC-8).
20 The ERP is the difference of these two numbers, or 7.0%. The average β for the water
21 companies in my DCF Proxy Group is 0.68. When one multiplies 7.0% by 0.68, the
22 result is 4.76%, which is the risk-adjusted ERP. This step is necessary because not all

⁵ *Blue Chip Financial Forecasts*, Vol. 32, No.8, August 1, 2013, p.14.

equities are equally risky, so it is necessary to take into account how they vary with other equities, which is what β measures. The calculation shows that a company comparable to USSC should receive 4.76% above the R_f , which is 8.86% (Exhibit DHC-8).

Conclusion

Q. WHAT IS THE RANGE OF YOUR RESULTS?

A. The top of my range is 9.60%, my CEM and DCF results rounded to the second percentile decimal, and the bottom of my range is 8.86%, my CAP-M result.

Q. DO YOU HAVE A RECOMMENDATION WITHIN YOUR RANGE, BASED ON ANY SPECIAL CONSIDERATIONS THAT YOU BELIEVE APPROPRIATE FOR EVALUATING YOUR RANGE?

A. I suggest that more weight be placed on the bottom end of the range. The parent company undertook an expensive form of debt at rates that were above the market at the time the debt was incurred and has shown no inclination to dilute that expensive rate. Utilities, Inc. cannot escape the debt by paying off earlier without being required to make the lenders whole immediately and it has chosen to make significant payments by having an interest-only phase of the loan. Undoubtedly, some portion of what the Company's customers pay in their bills goes to pay the excessive interest incurred by the parent company. Since the risk posed by this high rate did not arise because of any actions of USSC, USSC's customers should not have to pay for it. Accordingly, I recommend the lower end of my range.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Office of Regulatory Staff
Economic Overview
Utilities Services of South Carolina, Inc.
Docket #2013-201-WS

A Review of Some Major Events of the Recession and Recovery

Over the past five-and-a-half years, the United States has experienced dramatic economic changes. The landmark for these changes was the March 2008 insolvency of Bear Stearns. The firm's hedge funds held subprime mortgages with large losses, leading to its sale to J. P. Morgan Chase. The trouble spread to major Wall Street firms that had loaned money on the basis of assets that turned out to be worth less than thought. Falling prices of houses and equities reduced the wealth of households and created uncertainty about the economy. The S&P 500 Index fell as much as 50% during 2008 and housing prices fell 13% in the twelve-month run-up to the recession. A large number of banks and other financial institutions had balance sheets that were suddenly deemed untrustworthy because they reflected holdings of securities whose underlying value was tied to houses purchased with nontraditional mortgages. The best known example of the sudden collapse in trust is the bankruptcy of Lehman Brothers on September 15, 2008, the largest bankruptcy filing in U.S. history, with Lehman holding over \$600 billion in assets.¹

When falling housing prices led to defaults and foreclosures, the value of corporate assets suffered. Moreover, some financial instruments, such as credit default swaps, greatly magnified the effects of declining value. Fannie Mae lost \$29 Billion on Write-Downs. The Federal Reserve announced that it planned to buy up \$600 billion in debt and mortgage-backed securities from Fannie

¹ "[Lehman folds with record \\$613 billion debt](http://www.marketwatch.com/news/story/story.aspx?guid={2FE5AC05-597A-4E71-A2D5-9B9FCC290520}&siteid=rss)". Marketwatch. 2008-09-15.
<http://www.marketwatch.com/news/story/story.aspx?guid={2FE5AC05-597A-4E71-A2D5-9B9FCC290520}&siteid=rss>. Retrieved on 2008-09-15.

Mae, Freddie Mac and Ginnie Mae, the three government-sponsored finance firms established to promote home ownership.

As a result of steep drops in the value of assets and a dramatic drop in the willingness to lend, the Federal Reserve began a series of cuts in the Federal Funds Rate, the rate at which it lends banks money, starting with a half percent cut to 5.75% on August 16, 2007 and culminating in a drop on December 16, 2008 to a range between 0.0% and 0.25%. On November 10, 2008, the US Treasury announced investment of 40 billion dollars in preferred stock of AIG. In the First Quarter of 2009, the Federal Reserve purchased \$1.25 trillion in mortgage-backed securities and \$200 billion in agency debt.

On March 18, 2009, the Federal Reserve announced plans to purchase up to \$300 billion of longer-term Treasury securities. On June 24, 2009, it reiterated its plans to buy Treasury securities. Because the Federal Reserve had set rates near zero already, it could not cut them much. If there were deflation, real interest rates would rise, so its latest move circumvented the limitations of interest-rate policy by injecting liquidity directly into the monetary system through a variety of devices but especially through special credit facilities.²

The Federal Reserve's special programs were designed to ease credit in the face of illiquidity arising from the credit crisis that was both cause and result of the recession. Two measures of illiquidity, the "TED Spread" and the "OIS-LIBOR Spread" had widened dramatically (see Exhibits DHC-1a). The former is the difference between the Three-Month U.S. Treasury Bill rate and the London Interbank

² Most of the rest of the above discussion comes from these sources:

Federal Reserve Bank of St. Louis: January 2009 "Man the Lifeboats!" By Kevin L. Kliesen; and,

"The Global Economic & Financial Crisis: A Timeline," Mauro F. Guillén Director of the Lauder Institute, Wharton School, University of Pennsylvania [no date; see:
http://lauder.wharton.upenn.edu/pages/pdf/class_info/Chronology_Economic_Financial_Crisis.pdf]

Offered Rate (“LIBOR”).³ The latter is the difference between the Overnight Indexed Swap (“OIS”) and LIBOR (see Exhibit DHC-1b). Both of these indicators shot up during the credit crisis, but returned to near-normal levels. As a result of the return to a more normal credit situation, the Federal Reserve let these special facilities lapse.⁴

As some measure of confidence returned among financial institutions, lingering distrust and the prospect of deflation led the Federal Reserve to begin its “Quantitative Easing” (“QE”) policies in late 2008. Under these policies, the Federal Reserve sought to overcome the “Zero Bound” problem: the inability to lower interest rates below zero. By buying US Treasury securities, the QE policies effectively lowered interest rates below zero in order to avoid deflation, economic stagnation or decline, and to stimulate the economy. Part of this effort involved a shift into Treasury bonds away from shorter-term instruments, a policy partly begun in the second stage of QE. The policy, known as the “Twist,” involved the Federal Reserve’s getting out of shorter term Treasuries and into Longer-Term Treasuries in order to stimulate lending in capital projects. As there have been indications that the Federal Reserve is about to slow its purchases of Treasury securities, interest rates have increased. At the same time, additional financial pressure has been placed on companies by recent changes in tax law, which increases the capital gains tax on stock dividends and therefore the need for companies to increase their dividend yields. Nonetheless, as GDP continues to grow and unemployment declines very slowly, the very slowness of recovery from the recession five years ago should help companies with reliable growth.

Currently, the Federal Reserve remains on course, instructing the Federal Reserve Bank of New York to purchase \$85 billion per month (Exhibit DHC-14a&b), divided between mortgage-backed securities and longer-term Treasury securities. In July, the Federal Reserve’s Open-Market Committee

³ It used to be the difference between the Euro-Dollar futures contract and the Three-Month U.S. Treasury Bill rate, thence the name “TED” (“Treasury/Eurodollar”)

⁴ Federal Reserve Statement, January 2009:

<http://federalreserve.gov/newsevents/press/monetary/20090128a.htm>

maintained a target inflation rate of no more than 2% and the target unemployment rate of 6.5%.⁵ (See also DHC-12.) Leading up to this meeting there was some pulling back in stock values, tracked by the Federal Reserve itself:

Stock Market, Selected Statistics (1.36) ⁶												
Indicator	2010	2011	2012	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013
Prices and trading volume (averages of daily figures)												
<i>Common stock prices (Indexes)</i>												
1 New York Stock Exchange (Dec. 31, 1965=50)	7,233.54	7,862.45	8,008.24	8,295.67	8,129.90	8,367.74	8,759.89	8,896.97	9,038.29	9,092.21	9,440.35	9,204.10
2 Standard & Poor's Corporation (1941-1943=10) ¹	1,139.97	1,267.64	1,379.35	1,437.82	1,394.51	1,422.29	1,480.40	1,512.31	1,550.83	1,570.70	1,639.84	1,618.77
3 American Stock Exchange (Aug. 31, 1973 = 50) ²	1,939.79	2,285.19	2,377.55	2,430.56	2,370.36	2,374.90	2,399.22	2,392.41	2,401.79	2,377.81	2,421.10	2,311.15

⁵ Minutes of the Federal Open Market Committee, July 30-31, 2013. See: <http://www.federalreserve.gov/monetarypolicy/fomcminutes20130731.htm>

⁶ <http://www.federalreserve.gov/econresdata/releases/stockstats/current.htm>

Anxiety about “tapering,” led to reactions such as this one reported in Bloomberg/Business Week: “U.S. stocks fell, giving the Dow Jones Industrial Average its longest slump in 13 months, as minutes of the Federal Reserve’s July meeting showed officials support stimulus cuts this year if the economy improves.”⁷ The market is beginning to react and to place prices on the consequences of gradual Federal Reserve withdrawal from its current policies. While the Federal Reserve may not initiate the Taper on any set schedule, there is little doubt that the change is coming and investors in the stock market believe it is coming.

The sequestration of this spring and the stalemate in Congress’s budgeting and appropriations of September 30, 2013, stand nominally as budgetary issues, but are effectively fiscal, monetary, and macroeconomic policies. The impact of these policies would appear to affect the credit of the United States and, possibly, of U.S. bonds. Standard & Poor’s has issued a statement, however, that does not anticipate any immediate increase in bond rates nor a decrease in the credit rating of the United States Government.⁸ Interestingly, this statement anticipated both the budgetary stalemate and the delay in tapering recently announced by Federal Reserve Chairman Benjamin Bernanke (Exhibit DHC-14a). The statement by Standard & Poor’s came out on July 22, 2013 and was re-released on September 30, 2013.

⁷ Bloomberg News, “U.S. Stocks Fall as Fed Minutes Show Support for Tapering,” by Lu Wang and Alex Barinka August 21, 2013. <http://www.businessweek.com/news/2013-08-21/u-dot-s-dot-stock-index-futures-decline-before-federal-reserve-minutes>

⁸ https://www.globalcreditportal.com/ratingsdirect/renderArticle.do?articleId=1164747&SctArtId=170085&from=CM&nsi_code=LIME

This page was accessed through “The Debt Ceiling Debate Is Unlikely To Change The U.S. Sovereign Rating” at: <https://ratings.standardandpoors.com/governments/sovereign/US-Rating.html?elq=56690c9665ff40c7a46ab1d0310b84a1>

That such an analysis exists and that it anticipated the current deadlock by two months suggests that bond markets and stock markets have already priced in the recent events.

Office of Regulatory Staff

Utilities Services of South Carolina, Inc.

Earnings per Share -- Historical Data

Docket #2013-201-WS

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 ¹
American States Water	\$1.35	\$1.34	\$0.78	\$1.05	\$1.32	\$1.33	\$1.62	\$1.55	\$1.62	\$2.22	\$2.24	\$2.82
American Water Works												
Aqua America	\$0.51	\$0.54	\$0.57	\$0.64	\$0.71	\$0.70	\$0.71	\$0.73	\$0.77	\$0.90	\$1.04	\$1.09
Artesian Resources		\$0.76	\$0.64	\$0.72	\$0.81	\$0.97	\$0.90	\$0.86	\$0.97	\$1.00	\$0.83	\$1.13
California Water	\$0.47	\$0.63	\$0.61	\$0.73	\$0.74	\$0.67	\$0.75	\$0.95	\$0.98	\$0.91	\$0.86	\$1.02
Connecticut Water Service	\$1.13	\$1.12	\$1.15	\$1.16	\$0.88	\$0.81	\$1.05	\$1.11	\$1.19	\$1.13	\$1.13	\$1.53
Middlesex Water	\$0.66	\$0.73	\$0.61	\$0.73	\$0.71	\$0.82	\$0.87	\$0.89	\$0.72	\$0.96	\$0.84	\$0.90
SJW Corp.	\$0.77	\$0.78	\$0.91	\$0.87	\$1.12	\$1.19	\$1.04	\$1.08	\$0.81	\$0.84	\$1.11	\$1.18
York Water Co.	\$0.43	\$0.40	\$0.47	\$0.49	\$0.56	\$0.58	\$0.57	\$0.57	\$0.64	\$0.71	\$0.71	\$0.72

Source: Value Line, Exhibit DHC-9

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	1.05	0.99	0.58	1.35	1.26	1.01	1.22	0.96	1.05	1.37	1.01	1.26
American Water Works									1.14	1.22	1.12	1.23
Aqua America	1.09	1.06	1.06	1.12	1.11	0.99	1.01	1.03	1.05	1.17	1.16	1.05
Artesian Resources			0.84	1.13	1.13	1.20	0.93	0.96	1.13	1.03	0.83	1.36
California Water	0.69	1.34	0.97	1.20	1.01	0.91	1.12	1.27	1.03	0.93	0.95	1.19
Connecticut Water Service	1.04	0.99	1.03	1.01	0.76	0.92	1.30	1.06	1.07	0.95	1.00	1.35
Middlesex Water	1.29	1.11	0.84	1.20	0.97	1.15	1.06	1.02	0.81	1.33	0.88	1.07
SJW Corp.	1.33	1.01	1.17	0.96	1.29	1.06	0.87	1.04	0.75	1.04	1.32	1.06
York Water Co.		0.92	1.18	1.04	1.14	1.04	0.98	1.00	1.12	1.11	1.00	1.01

Office of Regulatory Staff

Utilities Services of South Carolina, Inc.

Earnings per Share -- Historical Summary

Docket #2013-201-WS

COMPANIES	10-yr Averages		5-yr. Averages		3-Yr. Averages	
	Compound	Simple	Compound	Simple	Compound	Simple
American States Water	7.72%	10.51%	11.72%	12.81%	20.29%	21.28%
American Water Works					19.07%	19.16%
Aqua America	7.28%	7.43%	8.95%	9.11%	12.28%	12.42%
Artesian Resources	4.05%	5.23%	4.66%	6.12%	5.22%	7.41%
California Water	4.94%	5.61%	6.34%	7.16%	1.34%	1.99%
Connecticut Water Service	3.17%	4.44%	7.82%	8.66%	8.74%	10.12%
Middlesex Water	2.12%	3.33%	0.68%	2.23%	7.72%	9.33%
SJW Corp.	4.23%	5.57%	2.56%	4.20%	13.36%	14.05%
York Water Co.	6.05%	6.25%	4.78%	4.93%	4.00%	4.12%
Means	4.94%	6.05%	5.94%	6.90%	10.23%	11.10%
Medians	<u>4.58%</u>	<u>5.59%</u>	<u>5.56%</u>	<u>6.64%</u>	<u>8.74%</u>	<u>10.12%</u>
Average of Mean & Median		5.29%	6.26%		10.04%	7.20%

Average of
Period
Averages
7.20%

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
Earnings per Share -- Estimates & Overall Summary
Docket #2013-201-W5

COMPANIES	Value Line [*]		Zacks [†]	Yahoo [‡]	Reuters
	\$'s	%'s			
American States Water	3.25	3.61%	2.00%	2.00%	2.00%
American Water Works	2.85	7.81%	7.74%	8.05%	9.04%
Aqua America	1.60	10.07%	5.27%	4.90%	6.27%
Artesian Resources	1.24	4.75%	14.95% †	4.00%	19.42%
California Water	1.35	7.26%	6.00%	6.00%	12.94%
Connecticut Water Service	1.75	3.42%	5.00%	5.00%	5.00%
Middlesex Water	1.15	6.32%	2.04% †	2.70%	6.06%
SJW Corp.	1.60	7.91%	7.58% *	14.00%	3.73%
York Water Co.	0.90	5.74%	10.39% *	4.90%	4.85%
		6.32%	6.77%	5.73%	7.70%
		6.32%	6.00%	4.90%	6.06%
		<u>6.32%</u>	<u>6.39%</u>	<u>5.31%</u>	<u>6.88%</u>

*Value Line, see Exhibit DHC-9; % =Compound Annual Growth Rate

† "Yahoo"=Yahoo!Finance web site

‡ "Zacks"=Zacks web site

‡ Estimated growth for this year over next

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
BVPS -- Historical Data
Docket #2013-201-WS

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	\$13.22	\$14.05	\$13.97	\$15.01	\$15.72	\$16.64	\$17.53	\$17.95	\$19.39	\$20.26	\$21.68	\$23.61
American Water Works												
Aqua America	\$4.15	\$4.36	\$5.34	\$5.89	\$6.30	\$6.96	\$7.32	\$7.82	\$8.12	\$8.51	\$9.01	\$9.87
Artesian Resources		\$9.65	\$9.01	\$9.26	\$9.60	\$10.15	\$11.66	\$11.86	\$12.15	\$12.44	\$13.12	\$13.57
California Water	\$6.48	\$6.56	\$7.22	\$7.83	\$7.90	\$9.07	\$9.25	\$9.72	\$10.13	\$10.45	\$10.76	\$11.30
Connecticut Water Service	\$9.25	\$10.06	\$10.46	\$10.94	\$11.52	\$11.60	\$11.95	\$12.23	\$12.67	\$13.05	\$13.50	\$16.89
Middlesex Water	\$7.11	\$7.39	\$7.60	\$8.02	\$8.26	\$9.52	\$10.05	\$10.03	\$10.33	\$11.13	\$11.27	\$11.48
SJW Corp.	\$8.17	\$8.40	\$9.11	\$10.11	\$10.72	\$12.48	\$12.90	\$13.99	\$13.66	\$13.75	\$14.20	\$14.68
York Water Co.	\$3.79	\$3.90	\$4.06	\$4.65	\$4.85	\$5.84	\$5.97	\$6.14	\$6.92	\$7.19	\$7.45	\$7.73

Source: Value Line, Exhibit DHC-8

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	1.04	1.06	0.99	1.07	1.05	1.06	1.05	1.02	1.08	1.04	1.07	1.09
American Water Works												
Aqua America	1.08	1.05	1.22	1.10	1.07	1.10	1.05	1.07	0.89	1.03	1.02	1.04
Artesian Resources			0.93	1.03	1.04	1.06	1.15	1.02	1.04	1.05	1.06	1.10
California Water	1.00	1.01	1.10	1.08	1.01	1.15	1.02	1.05	1.04	1.03	1.05	1.05
Connecticut Water Service	1.04	1.09	1.04	1.05	1.05	1.01	1.03	1.02	1.04	1.03	1.03	1.25
Middlesex Water	1.02	1.04	1.03	1.06	1.03	1.15	1.06	1.00	1.03	1.08	1.01	1.02
SJW Corp.	1.03	1.03	1.08	1.11	1.06	1.16	1.03	1.08	0.98	1.01	1.03	1.03
York Water Co.		1.03	1.04	1.15	1.04	1.20	1.02	1.03	1.13	1.04	1.04	1.04

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
Book Value per Share -- Historical Summary, Estimates & Overall Summary
Docket #2013-201-WS

COMPANIES	10-yr Averages		5-yr. Averages		3-Yr. Averages	
	Compound	Simple	Compound	Simple	Compound	Simple
American States Water	5.33%	5.36%	6.14%	6.16%	6.78%	6.80%
American Water Works					3.09%	3.09%
Aqua America	8.51%	8.63%	6.16%	6.18%	6.72%	6.74%
Artesian Resources	3.46%	3.58%	3.08%	3.09%	3.77%	3.78%
California Water	5.59%	5.66%	4.08%	4.09%	3.71%	3.71%
Connecticut Water Service	5.32%	5.51%	7.16%	7.50%	10.06%	10.52%
Middlesex Water	4.50%	4.58%	2.70%	2.73%	3.58%	3.62%
SJW Corp.	5.74%	5.86%	2.62%	2.68%	2.43%	2.44%
York Water Co.	7.08%	7.24%	5.30%	5.37%	3.76%	3.76%
Means	5.69%	5.80%	4.66%	4.72%	4.88%	4.94%
Medians	<u>5.46%</u>	<u>5.59%</u>	<u>4.69%</u>	<u>4.73%</u>	<u>3.76%</u>	<u>3.76%</u>
Average of Mean & Median		<u>5.64%</u>		<u>4.70%</u>		<u>4.33%</u>
						<u>4.89%</u>

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
BVPS -- Estimates & Summary
Docket #2013-201-W5

COMPANIES	Value Line*	
	\$'s	%'s
American States Water	\$24.25	0.67%
American Water Works	\$30.00	4.56%
Aqua America	\$13.30	7.74%
Artesian Resources		
California Water	\$15.00	7.34%
Connecticut Water Service	\$20.40	4.83%
Middlesex Water	\$12.90	2.96%
SJW Corp.	\$19.15	6.87%
York Water Co.	\$8.60	2.70%
		4.71%
		<u>4.71%</u>

*Source: Exhibit DHC-9

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
Sales/Revenues -- Historical Data
Docket #2013-201-WS

COMPANIES \ YEARS	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	\$209.20	\$212.70	\$228.00	\$236.20	\$268.60	\$301.40	\$318.70	\$361.00	\$398.90	\$419.30	\$466.90
American Water Works							\$2,336.90	\$2,440.70	\$2,710.70	\$2,666.20	\$2,876.90
Aqua America	\$322.00	\$367.20	\$442.00	\$496.80	\$533.50	\$602.50	\$627.00	\$670.50	\$726.10	\$712.00	\$757.80
Artesian Resources	\$34.60	\$36.30	\$39.60	\$45.30	\$47.30	\$52.50	\$56.20	\$60.90	\$64.90	\$65.10	\$70.60
California Water	\$263.20	\$277.10	\$315.60	\$320.70	\$334.70	\$367.10	\$410.30	\$449.40	\$460.40	\$501.80	\$560.00
Connecticut Water Service	\$45.80	\$47.10	\$48.50	\$47.50	\$46.90	\$59.00	\$61.30	\$59.40	\$66.40	\$69.40	\$83.80
Middlesex Water	\$61.90	\$64.10	\$71.00	\$74.60	\$81.10	\$86.10	\$91.00	\$91.20	\$102.70	\$102.10	\$110.40
SJW Corp.	\$145.70	\$149.70	\$166.90	\$180.10	\$189.20	\$206.60	\$220.30	\$216.10	\$215.60	\$239.00	\$261.60
York Water Co.	\$19.60	\$20.90	\$22.50	\$26.80	\$28.70	\$31.40	\$32.80	\$37.00	\$39.00	\$40.60	\$41.40

Ratios of Change over Previous Year

COMPANIES \ YEARS	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	1.06	1.02	1.07	1.04	1.14	1.12	1.06	1.13	1.10	1.05	1.11
American Water Works								1.04	1.11	0.98	1.08
Aqua America	1.05	1.14	1.20	1.12	1.07	1.13	1.04	1.07	1.08	0.98	1.06
Artesian Resources	1.08	1.05	1.09	1.14	1.04	1.11	1.07	1.08	1.07	1.00	1.08
California Water	1.07	1.05	1.14	1.02	1.04	1.10	1.12	1.10	1.02	1.09	1.12
Connecticut Water Service	1.01	1.03	1.03	0.98	0.99	1.26	1.04	0.97	1.12	1.05	1.21
Middlesex Water	1.04	1.04	1.11	1.05	1.09	1.06	1.06	1.00	1.13	0.99	1.08
SJW Corp.	1.07	1.03	1.11	1.08	1.05	1.09	1.07	0.98	1.00	1.11	1.09
York Water Co.	1.01	1.07	1.08	1.19	1.07	1.09	1.04	1.13	1.05	1.04	1.02

Source: Value Line, Exhibit DHC-9

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
Sales/Revenues -- Historical Summary

Docket #2013-201-WS

COMPANIES	10-yr Averages		5-yr. Averages		3-Yr. Averages	
	Compound	Simple	Compound	Simple	Compound	Simple
American States Water	8.36%	8.44%	9.15%	9.20%	8.95%	8.99%
American Water Works					5.63%	5.77%
Aqua America	8.94%	9.09%	4.69%	4.76%	4.16%	4.26%
Artesian Resources	7.39%	7.45%	6.10%	6.15%	5.05%	5.11%
California Water	7.84%	7.92%	8.81%	8.87%	7.61%	7.68%
Connecticut Water Service	6.23%	6.61%	7.27%	7.57%	12.16%	12.35%
Middlesex Water	5.96%	6.03%	5.10%	5.21%	6.58%	6.72%
SJW Corp.	6.03%	6.12%	4.83%	4.96%	6.58%	6.69%
York Water Co.	7.76%	7.86%	5.69%	5.75%	3.82%	3.83%
Means	7.31%	7.44%	6.46%	6.56%	6.73%	6.82%
Medians	7.58%	7.66%	5.89%	5.95%	6.58%	6.69%
Average of Mean & Median		7.50%		6.21%		6.70%
						Period Averages 6.81%

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
Sales/Revenues -- Estimates & Overall Summary

Docket #2013-201-WS

COMPANIES	Value Line®		Yahoo	Zacks
	\$'s	%'s		
American States Water	550	4.18%	0.70%	9.58%
American Water Works	3800	7.20%	4.60%	5.12%
Aqua America	915	4.83%	4.20%	5.03%
Artesian Resources			5.00%	5.42%
California Water	800	9.33%	6.90%	7.37%
Connecticut Water Service	135	12.66%	4.90%	11.43%
Middlesex Water	155	8.85%	6.80%	5.26%
SJW Corp.	375	9.42%	3.20%	4.91%
York Water Co.	50	4.83%	<u>7.20%</u>	<u>5.93%</u>
		7.66%	4.83%	6.67%
		8.03%	<u>4.90%</u>	<u>5.42%</u>
		<u>7.85%</u>	<u>4.87%</u>	<u>6.05%</u>

*Value Line provided \$ figures, rather than % growth; % growth was calculated

† "Yahoo"=Yahoo!Finance web site; 1-year estimates

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
DPS -- Historical Data
Docket #2013-201-WS

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water	\$0.87	\$0.87	\$0.88	\$0.89	\$0.90	\$0.91	\$0.96	\$1.00	\$1.01	\$1.04	\$1.10	\$1.27
American Water Works								\$0.80	\$0.82	\$0.86	\$0.91	\$0.96
Aqua America	\$0.30	\$0.32	\$0.35	\$0.37	\$0.40	\$0.44	\$0.48	\$0.51	\$0.55	\$0.59	\$0.63	\$0.67
Artesian Resources	\$0.49	\$0.52	\$0.53	\$0.55	\$0.58	\$0.61	\$0.66	\$0.71	\$0.72	\$0.75	\$0.76	\$0.79
California Water	\$0.56	\$0.56	\$0.56	\$0.57	\$0.57	\$0.58	\$0.58	\$0.59	\$0.59	\$0.60	\$0.62	\$0.63
Connecticut Water Service	\$0.80	\$0.81	\$0.83	\$0.84	\$0.85	\$0.86	\$0.87	\$0.88	\$0.90	\$0.92	\$0.94	\$0.96
Middlesex Water	\$0.62	\$0.63	\$0.65	\$0.66	\$0.67	\$0.68	\$0.69	\$0.70	\$0.71	\$0.72	\$0.73	\$0.74
SJW Corp.	\$0.43	\$0.46	\$0.49	\$0.51	\$0.53	\$0.57	\$0.61	\$0.65	\$0.66	\$0.68	\$0.69	\$0.71
York Water Co.	\$0.34	\$0.35	\$0.37	\$0.39	\$0.42	\$0.45	\$0.48	\$0.49	\$0.51	\$0.52	\$0.53	\$0.54

Note: American Water Works began paying dividends in mid-2008, after it became publicly traded; these are pro-rated to a full year.

COMPANIES \ YEARS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
American States Water		1.00	1.01	1.01	1.01	1.01	1.05	1.04	1.01	1.03	1.06	1.15
American Water Works									1.03	1.05	1.06	1.05
Aqua America		1.07	1.09	1.06	1.08	1.10	1.09	1.06	1.08	1.07	1.07	1.06
Artesian Resources		1.05	1.03	1.04	1.05	1.05	1.08	1.08	1.01	1.04	1.01	1.04
California Water		1.00	1.00	1.02	1.00	1.02	1.00	1.02	1.00	1.02	1.03	1.02
Connecticut Water Service		1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.02	1.02	1.02	
Middlesex Water		1.02	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
SJW Corp.		1.07	1.07	1.04	1.04	1.08	1.07	1.07	1.02	1.03	1.01	1.03
York Water Co.		1.03	1.06	1.05	1.08	1.07	1.07	1.02	1.04	1.02	1.02	

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
DPS -- Historical Data Summary

Docket #2013-201-WS

COMPANIES	10-yr Averages		5-yr. Averages		3-Yr. Averages	
	Compound	Simple	Compound	Simple	Compound	Simple
American States Water	3.86%	3.94%	5.76%	5.87%	7.93%	8.06%
American Water Works					5.39%	5.40%
Aqua America	7.67%	7.68%	6.90%	6.90%	6.80%	6.80%
Artesian Resources	4.38%	4.40%	3.71%	3.74%	3.23%	3.24%
California Water	1.18%	1.19%	1.67%	1.67%	2.21%	2.21%
Connecticut Water Service	1.67%	1.67%	1.95%	1.95%	2.20%	2.20%
Middlesex Water	1.62%	1.62%	1.41%	1.41%	1.39%	1.39%
SJW Corp.	4.44%	4.46%	3.08%	3.10%	2.46%	2.47%
York Water Co.	4.72%	4.74%	2.51%	2.51%	1.94%	1.94%
Means	3.69%	3.71%	3.37%	3.39%	3.73%	3.75%
Medians	4.12%	4.17%	2.80%	2.81%	2.46%	2.47%
Average of Mean & Median		3.92%		3.09%		3.10%
						<u>3.37%</u>

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
DPS -- Estimates & Summary
Docket #2013-201-WS

COMPANIES	DPS Projection **	Compound %
American States Water	1.80	9.11%
American Water Works	1.40	9.89%
Aqua America	1.00	10.53%
Artesian Resources		
California Water	0.90	9.33%
Connecticut Water Service	1.14	4.34%
Middlesex Water	0.80	1.97%
SJW Corp.	0.90	6.11%
York Water Co.	0.65	<u>4.99%</u>
Mean		7.03%
Median		7.61%
Average of Mean & Median		<u>7.32%</u>

Average of Historical & Projected DPS Growth **5.35%**

*Source: Exhibit DHC-9

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
DCF Summary
Docket #2013-201-WS

<u>Indicator</u>	<u>Historical</u>	<u>Projected</u>	<u>Average</u>	<u>Source</u>
EPS	7.20%	6.23%	6.71%	Exhibit DHC-2
BVPS	4.89%	4.71%	4.80%	Exhibit DHC-3
Sales/Rev.	6.81%	6.25%	6.53%	Exhibit DHC-4
DPS	3.37%	7.32%	5.35%	Exhibit DHC-5
			5.85%	Calculated average/mean
			3.55%	Exhibits DHC-1, p.3 of 5, DHC-7, DHC-9, p. 10 of 10
			<u>0.21%</u>	Calculated, multiplication of above two lines
			<u>9.60%</u>	DCF Recommendation

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Utilities Services of South Carolina, Inc.
DCF Proxy Group Characteristics
Docket #2013-201-WS

<u>Company</u>	<u>Dividend</u>		<u>Market</u>		<u>β</u>	<u>Bond</u>	
	<u>Yield¹</u>		<u>Cap'n²</u>			<u>Rating</u>	
American States Water	2.80%		\$775		0.70	A+	
American Water Works	2.90%		\$6,200		0.65	A-	
Aqua America	2.60%		\$3,600		0.60	A+ ³	
Artesian Resources	3.70%		\$245		0.60	n/a	
California Water	3.40%		\$775		0.65	A+	
Connecticut Water Service	3.20%		\$355		0.75	A	
Middlesex Water	3.90%		\$300		0.70	A-	
SJW Corp.	3.00%		\$450		0.85	A ³	
York Water Co.	<u>3.00%</u>		\$181		<u>0.65</u>	A-	
	<u>3.17%</u>				<u>0.68</u>		

Sources:

All columns except Credit Rating: Exhibit DHC-9
Bond Rating column from S&P online

Footnotes:

¹ Average Water Company Dividend Yield before reduction in capital gains = $(3.5\% + 3.6\%)/2$; see Exhibit DHC-9, p. 10 of 10

² "Cap'n" = "Capitalization"; numbers are in \$1,000,000's

³ Ratings of Aqua Pennsylvania & San Jose Water Companies, respectively

Office of Regulatory Staff
Utilities Services of South Carolina, Inc.
CAP-M Calculation
Docket #2013-201-WS

<u>Deciles of Company</u>	<u>Compound Annual</u>	<u>Quarter in Blue</u>	<u>30-Yr. Treasury</u>
<u>Size</u>	<u>Growth Rate (%)</u>	<u>Chip Forecast</u>	<u>Bond Rate</u>
Largest: 1	9.1		
2	10.4	2Q 2013	3.15
3	10.8	3Q 2013	3.60
4	10.8	4Q 2013	3.70
5	11.3	1Q 2014	3.80
6	11.3	2Q 2014	3.90
7	11.3	3Q 2014	4.00
8	11.5	4Q 2014	4.10
9	11.5		
Smallest: 10	13.0		
Average	11.1		

$$K = R_f + ((R_m - R_f) * \beta)$$
$$K = 4.1 + ((11.1 - 4.1) * .68)$$
$$K = 8.86$$

Sources:

Long-Term stock returns Stocks, Bonds, Bills & Inflation, 2013 Yearbook, p.96
30-Year Treasury Bond projected interest rate: Blue Chip Financial Forecasts, August 1, 2013, p.2
 β is from Exhibit DHC-7

AMER. STATES WATER NYSE-AVR										RECENT PRICE	55.11	P/E RATIO	19.3 (Trailing: 18.5 Median: 22.0)	RELATIVE P/E RATIO	1.10	DIV'D YLD	3.0%	VALUE LINE	Target Price Range										
TIMELINESS	2	Raised 11/23/12	High: 29.0	29.0	26.8	34.6	43.8	46.1	42.0	38.8	39.6	36.4	48.1	57.8					2016	2017	2018								
SAFETY	2	Raised 7/20/12	Low: 20.3	21.6	20.8	24.3	30.3	33.6	27.0	29.8	31.2	30.5	34.1	48.0															
TECHNICAL	3	Raised 5/24/13	<div>LEGENDS</div> <div>1.25 x Dividends p sh divided by Interest Rate</div> <div>Relative Price Strength</div> <div>3-for-2 split 6/02</div> <div>Options: Yes</div> <div>Shaded areas indicate recessions</div>																										
BETA	.70	(1.00 = Market)																											
2016-18 PROJECTIONS																						% TOT. RETURN 6/13							
Price	75	Gain	(+35%)	Ann'l Total	10%																								
High	75	Low	55	Return	3%																								
Insider Decisions										Percent shares traded																			
A S O N D J F M A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0												
to Buy	16	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0												
Options	17	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0												
to Sell	17	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0												
Institutional Decisions										Percent shares traded																			
3Q2012	4Q2012	1Q2013	2Q2013	3Q2013	4Q2013	1Q2014	2Q2014	3Q2014	4Q2014																				
to Buy	79	77	93	93	93	93	93	93	93																				
to Sell	65	64	59	59	59	59	59	59	59																				
Net's(000)	11747	12033	12482	12482	12482	12482	12482	12482	12482																				
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	VALUE LINE P/B, LLC			16-18								
11.44	11.02	12.91	12.17	13.06	13.78	13.98	13.61	14.06	15.76	17.49	18.42	19.48	21.41	22.24	24.24	24.40	25.65	Revenues per sh			25.60								
1.85	2.04	2.26	2.20	2.53	2.54	2.08	2.23	2.64	2.89	3.31	3.37	3.40	4.23	4.26	4.96	5.25	5.70	"Cash Flow" per sh			6.50								
1.04	1.08	1.19	1.28	1.35	1.34	.78	1.05	1.32	1.33	1.62	1.55	1.62	2.22	2.24	2.82	2.85	2.95	Earnings per sh ^A			3.25								
.83	.84	.85	.86	.87	.87	.88	.89	.90	.91	.96	1.00	1.01	1.04	1.10	1.27	1.45	1.55	Div'd Decl'd per sh ^{B=C}			1.80								
2.58	3.11	4.30	3.03	3.18	2.68	3.76	5.03	4.24	3.91	2.89	4.45	4.18	4.24	4.26	3.54	4.40	4.35	Cap'l Spending per sh			4.20								
11.24	11.48	11.82	12.74	13.22	14.05	13.97	15.01	15.72	16.64	17.53	17.95	19.39	20.26	21.68	23.61	23.70	23.95	Book Value per sh			24.25								
13.44	13.44	13.44	15.12	15.12	15.18	15.21	16.75	16.80	17.05	17.23	17.30	18.53	18.63	18.85	19.26	19.50	19.50	Common Shs Outst'g ^C			21.50								
14.5	15.5	17.1	15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	14.3	14.3	Avg Ann'l P/E Ratio			19.5								
.84	.81	.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.92	.92	.92	Relative P/E Ratio			1.30								
5.5%	5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	3.1%	3.1%	Avg Ann'l Div'd Yield			3.1%								
CAPITAL STRUCTURE as of 3/31/13										212.7	228.0	236.2	268.6	301.4	318.7	361.0	398.9	419.3	466.9	480	500								
Total Debt \$335.8 mill. Due in 5 Yrs \$10.6 mill.										11.9	16.5	22.5	23.1	28.0	26.8	29.5	41.4	42.0	54.1	56.0	58.0								
LT Debt \$332.4 mill. LT Interest \$8.0 mill.										43.5%	37.4%	47.0%	40.5%	42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	40.0%	40.0%								
(LT interest earned: 5.2x: total interest coverage: 4.9x) (42% of Cap'l)										--	--	--	12.2%	8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	2.5%	2.5%								
Leases, Uncapitalized: Annual rentals \$3.0 mill.										52.0%	47.7%	50.4%	48.6%	46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	43.0%	43.0%								
Pension Assets-12/12 \$107.6 mill.										48.0%	52.3%	49.6%	51.4%	53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	57.0%	57.0%								
Oblig. \$163.2 mill.										442.3	480.4	532.5	551.6	569.4	577.0	665.0	677.4	749.1	787.0	800	820								
Pfd Stock None.										602.3	664.2	713.2	750.6	776.4	825.3	866.4	855.0	896.5	917.8	940	985								
Common Stock 19,284,804 shs. as of 5/7/13										4.6%	5.2%	5.4%	6.0%	6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	7.5%	7.5%								
MARKET CAP: \$1.1 billion (Mid Cap)										5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.0%	12.5%								
										5.6%	6.6%	8.5%	8.1%	9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.0%	12.5%								
										NMF	1.0%	2.8%	2.7%	3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.0%	6.0%								
										113%	84%	67%	67%	58%	64%	61%	47%	49%	45%	51%	52%								
CURRENT POSITION										2011	2012	3/31/13																	
(MILL.)										2011	2012	3/31/13																	
Cash Assets										1.3	23.5	32.8																	
Other										164.3	160.5	141.1																	
Current Assets										165.6	184.0	173.9																	
Accts Payable										37.9	40.6	46.6																	
Debt Due										.3	3.3	3.4																	
Other										66.2	49.8	39.8																	
Current Liab.										104.4	93.7	89.8																	
Fix. Chg. Cov.										401%	442%	450%																	
ANNUAL RATES of change (per sh)										Past 10 Yrs.	Past 5 Yrs.	Est'd '10-'12 to '16-'18																	
Revenues										5.5%	7.5%	3.0%																	
"Cash Flow"										6.5%	9.0%	6.5%																	
Earnings										6.5%	11.5%	5.0%																	
Dividends										3.0%	4.5%	8.0%																	
Book Value										5.0%	5.5%	2.0%																	
QUARTERLY REVENUES (\$ mill.)										Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31															
										2010	88.4	95.5	111.3	103.7	398.9														
										2011	94.3	109.8	119.9	95.3	419.3														
										2012	107.6	114.3	133.5	111.5	466.9														
										2013	110.6	120	135	114.4	480														
										2014	115	125	140	120	500														
EARNINGS PER SHARE ^A										Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31															
										2010	.45	.47	.62	.68	2.22														
										2011	.37	.68	.83	.36	2.24														
										2012	.53	.79	.97	.53	2.82														
										2013	.69	.75	.95	.46	2.85														
										2014	.55	.80	1.10	.50	2.95														
QUARTERLY DIVIDENDS PAID ^{B=C}										Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31															
										2009	.250	.250	.250	.260	1.01														
										2010	.260	.260	.260	.260	1.04														
										2011	.260	.280	.280	.280	1.10														
										2012	.280	.280	.355	.355	1.27														
										2013	.355	.355	.405																
BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 728 employees. Officers & directors own 2.9% of common stock (4/12 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprowls. Inc. CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.																				pany has been aggressively pursuing business outside of its core water utility activities for the past several years. Indeed, in 2012, more than 25% of its income came from water and wastewater contracts at U.S. military bases. Currently, the company is involved in major construction at Fort Bragg and Fort Bliss. And while the pipeline has slowed recently, we look for a long-term pickup in this business as the U.S. Army seeks to privatize certain aspects of its operations.									
																				The balance sheet should be able to handle the step-up in capital expenditures. The company raised its projected construction budget from \$70 million to \$85 million annually. This should be managed without any deterioration to the company's already solid finances.									
																				This equity has a Timeliness rank of 2 (Above Average). These shares may appeal to momentum and income-seeking investors (especially given the recent hefty 14% dividend increase). Longer-term investors will probably not be attracted to the stock's below-average total return potential through 2016-2018.									
																				James A. Flood July 19, 2013									

AMERICAN WATER

NYSE-AWK

RECENT PRICE

41.46

P/E RATIO

18.4

(Trailing: 19.3)

Median: NMF

RELATIVE P/E RATIO

1.05

DIV YLD

2.8%

VALUE LINE

TIMELINESS

3

Raised 6/21/13

SAFETY

3

New 7/25/08

TECHNICAL

3

Raised 4/19/13

BETA

.65

(1.00 = Market)

2016-18 PROJECTIONS

Ann'l Total Return

12%

3%

Insider Decisions

A S O N D J F M A

to Buy

Options

to Sell

Institutional Decisions

3Q2012

4Q2012

1Q2013

to Buy

to Sell

Hits(000)

LEGENDS

0.85 x Dividends p sh divided by Interest Rate Relative Price Strength

Options: Yes

Shaded areas indicate recessions

High

Low

23.7

16.5

23.0

16.2

25.8

19.4

32.8

25.2

39.4

31.3

43.1

37.0

Target Price

2016

2017

2018

80

60

50

40

30

25

20

15

10

7.5

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006E

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

Revenues per sh

20.00

5.20

2.85

1.40

5.25

30.00

190.00

18.0

1.20

2.8%

3800

540

40.0%

12.0%

53.5%

46.5%

12000

14000

6.0%

9.5%

9.5%

4.5%

50%

Revenues (\$mill)

Income Tax Rate

AFUDC % to Net Profit

Long-Term Debt Ratio

Common Equity Ratio

Total Capital (\$mill)

Net Plant (\$mill)

Return on Total Cap'l

Return on Shr. Equity

Return on Com Equity

Retained to Com Eq

All Div'ds to Net Prof

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Chairman

CEO

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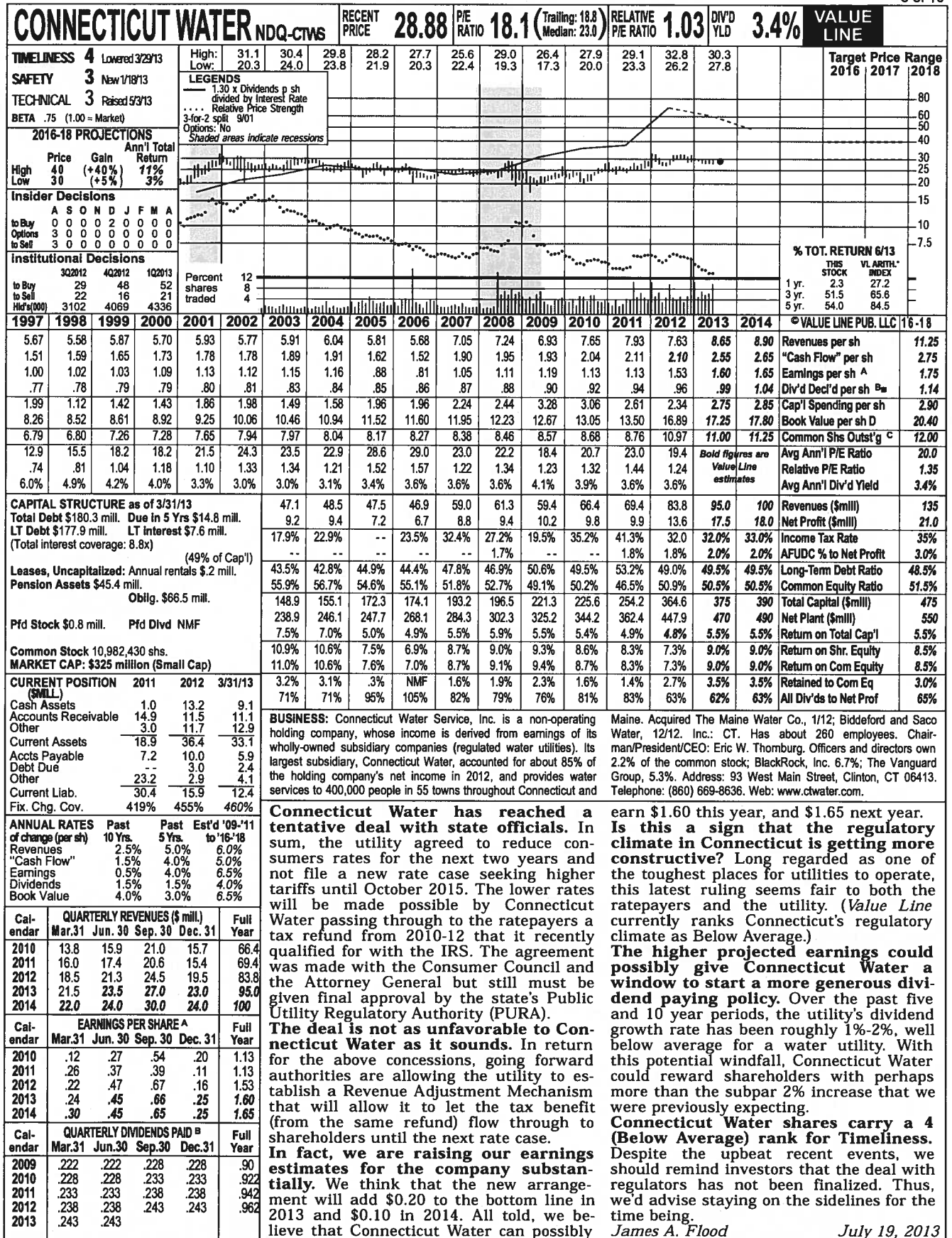
Earnings per Share</

AQUA AMERICA NYSE-WTR				RECENT PRICE	32.33	P/E RATIO	22.3 (Trailing: 26.1 Median: 24.0)	RELATIVE P/E RATIO	1.27	DIV'D YLD	2.4%	VALUE LINE				
TIMELINESS	3	Lowered 5/24/13	High: 15.0	16.8	18.5	29.2	29.8	26.6	22.0	21.5	23.0	23.8	26.9	33.3	Target Price	Range
SAFETY	2	Raised 4/23/12	Low: 9.6	11.8	14.2	17.5	20.1	18.9	12.2	15.4	16.5	19.3	21.1	25.7	2016	2017
TECHNICAL	2	Raised 7/5/13	LEGENDS												2018	
BETA	.60	(1.00 = Market)	1.60 x Dividends p sh divided by Interest Rate													
2016-18 PROJECTIONS			Relative Price Strength													
Price	Gain	Ann'l Total	5-for-4 split 12/00												64	
High	30	(+25%)	5-for-4 split 12/01												48	
Low	40	(-5%)	5-for-4 split 12/03												40	
			4-for-3 split 12/05												32	
			Options: Yes												24	
			Shaded areas indicate recessions												20	
															16	
															12	
															8	
															6	
Insider Decisions																
to Buy																
Options																
to Sell																
Institutional Decisions																
3Q2012																
4Q2012																
1Q2013																
to Buy																
to Sell																
Mid's(000)																
Percent shares traded																

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ARTESIAN RES. CORP. NDQ-ARINA				RECENT PRICE	22.30	TRAILING P/E RATIO	21.4	RELATIVE P/E RATIO	1.13	DIV'D YLD	3.7%	VALUE LINE		
RANKS		22.62	22.33	20.67	19.31	18.73	19.59	19.99	24.43	23.75			High	
		17.20	17.90	18.26	13.00	12.81	16.43	15.16	18.20	21.52			Low	
PERFORMANCE	3	Average												
Technical	3	Average												
SAFETY	2	Average												
BETA	.60	(1.00 = Market)												
Financial Strength	B													
Price Stability	100													
Price Growth Persistence	40													
Earnings Predictability	85													
© VALUE LINE PUBLISHING LLC														
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014/2015			
SALES PER SH		7.52	7.77	7.20	7.59	8.11	8.48	7.56	8.10	—				
"CASH FLOW" PER SH		1.56	1.75	1.57	1.65	1.84	1.92	1.64	2.04	—				
EARNINGS PER SH		.81	.97	.90	.86	.97	1.00	.83	1.13	1.07 ^{A,B}	1.24 ^{C,NA}			
DIV'DS DECL'D PER SH		.58	.61	.66	.71	.72	.75	.76	.79	—				
CAP'L SPENDING PER SH		3.35	5.08	3.66	6.09	2.32	2.57	1.83	2.36	—				
BOOK VALUE PER SH		9.60	10.15	11.66	11.86	12.15	12.44	13.12	13.57	—				
COMMON SHS OUTST'G (MILL)		6.02	6.09	7.30	7.40	7.51	7.65	8.61	8.71	—				
AVG ANN'L P/E RATIO		24.2	20.3	21.5	20.1	16.4	18.2	22.5	18.3	20.8	18.0/NA			
RELATIVE P/E RATIO		1.28	1.10	1.14	1.21	1.09	1.16	1.41	1.17	—				
AVG ANN'L DIV'D YIELD		2.9%	3.1%	3.4%	4.1%	4.5%	4.1%	4.1%	3.8%	—				
SALES (\$MILL)		45.3	47.3	52.5	56.2	60.9	64.9	65.1	70.6	—		Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.		
OPERATING MARGIN		100.0%	45.6%	45.6%	45.1%	46.9%	46.5%	45.5%	48.7%	—				
DEPRECIATION (\$MILL)		4.4	4.6	5.2	5.8	6.6	7.0	7.4	7.9	—				
NET PROFIT (\$MILL)		5.0	6.1	6.3	6.4	7.3	7.6	6.7	9.8	—				
INCOME TAX RATE		39.9%	39.0%	39.8%	40.8%	40.1%	40.0%	40.8%	40.2%	—				
NET PROFIT MARGIN		11.1%	12.8%	11.9%	11.4%	11.9%	11.7%	10.4%	14.0%	—				
WORKING CAP'L (\$MILL)		d1.8	d8.8	2.5	d20.9	d23.3	d27.9	d11.4	d11.4	—				
LONG-TERM DEBT (\$MILL)		92.4	92.1	91.8	107.6	106.0	105.1	106.5	106.3	—				
SHR. EQUITY (\$MILL)		57.8	61.8	85.1	87.8	91.2	95.1	113.0	118.2	—				
RETURN ON TOTAL CAP'L		5.3%	5.8%	5.3%	4.7%	5.2%	5.6%	4.6%	5.9%	—				
RETURN ON SHR. EQUITY		8.7%	9.8%	7.4%	7.3%	8.0%	8.0%	6.0%	8.3%	—				
RETAINED TO COM EQ		2.7%	3.8%	2.1%	1.4%	2.1%	2.0%	.5%	2.5%	—				
ALL DIV'DS TO NET PROF		69%	61%	71%	81%	74%	75%	92%	70%	—				
^A No. of analysts changing earn. est. in last 5 days: 0 up, 0 down, consensus 5-year earnings growth not available. ^B Based upon 4 analysts' estimates. ^C Based upon 4 analysts' estimates.														
ANNUAL RATES				ASSETS (\$mill.)				2011	2012	3/31/13	INDUSTRY: Water Utility			
of change (per share)				2011				2012	3/31/13					
5 Yrs.				2011				2012	3/31/13					
1 Yr.				2011				2012	3/31/13					
Sales				2011				2012	3/31/13					
"Cash Flow"				2011				2012	3/31/13					
Earnings				2011				2012	3/31/13					
Dividends				2011				2012	3/31/13					
Book Value				2011				2012	3/31/13					
Fiscal Year		QUARTERLY SALES (\$mill.)				1Q	2Q	3Q	4Q	Full Year	BUSINESS: Artesian Resources Corporation, through its subsidiaries, provides water, wastewater, and other services on the Delmarva Peninsula. It distributes and sells water to residential, commercial, industrial, municipal, and utility customers in the states of Delaware, Maryland, and Pennsylvania. The company also offers water for public and private fire protection to customers in its service territories. In addition, it provides contract water and wastewater services, water and sewer service line protection plans, and wastewater management services, as well as design, construction, and engineering services. As of December 31, 2012, the company served approximately 79,000 metered water customers through 1,162 miles of transmission and distribution mains. Has 229 employees. Chairman, C.E.O. & President: Dian C. Taylor. Address: 664 Churchmans Rd., Newark, DE 19702. Tel.: (302) 453-6900. Internet: http://www.artesianwater.com .			
12/31/11		12/31/11				14.8	16.5	17.7	16.1	65.1				
12/31/12		12/31/12				16.7	17.9	19.0	17.0	70.6				
12/31/13		12/31/13				16.3								
12/31/14		12/31/14												
Fiscal Year		EARNINGS PER SHARE				1Q	2Q	3Q	4Q	Full Year	LONG-TERM DEBT AND EQUITY as of 3/31/13 Total Debt \$117.7 mill. Due In 5 Yrs. NA LT Debt \$106.0 mill. Including Cap. Leases NA (47% of Cap'l) Leases, Uncapitalized Annual rentals NA Pension Liability \$4 mill. in '12 vs. \$5 mill. in '11 Pfd Stock None Pfd Div'd Paid None Common Stock 8,740,479 shares (53% of Cap'l)			
12/31/10		12/31/10				.22	.24	.38	.16	1.00				
12/31/11		12/31/11				.14	.23	.26	.20	.83				
12/31/12		12/31/12				.28	.32	.33	.20	1.13				
12/31/13		12/31/13				.19	.27	.34	.27					
12/31/14		12/31/14												
Cal-endar		QUARTERLY DIVIDENDS PAID				1Q	2Q	3Q	4Q	Full Year	TOTAL SHAREHOLDER RETURN Dividends plus appreciation as of 6/30/2013 3 Mos. 6 Mos. 1 Yr. 3 Yrs. 5 Yrs. 0.05% 1.15% 7.22% 35.71% 48.95%			
2010		2010				.187	.188	.188	.189	.75				
2011		2011				.19	.19	.19	.193	.76				
2012		2012				.193	.198	.198	.203	.79				
2013		2013				.203	.206							
INSTITUTIONAL DECISIONS				3Q'12				4Q'12	1Q'13					
				34				28	32					
				23				32	26					
				3021				3052	3036					

CALIFORNIA WATER NYSE-CWT										RECENT PRICE	20.10	P/E RATIO	25.1 (Trailing: 20.9 Median: 21.0)	RELATIVE P/E RATIO	1.43	DIV'D YLD	3.2%	VALUE LINE	Target Price Range										
TIMELINESS	3	Raised 7/5/13	High: 13.4	15.7	19.0	21.1	22.9	22.7	23.3	24.1	19.8	19.4	19.3	21.2				2016	2017	2018									
SAFETY	3	Lowered 7/27/07	Low: 10.2	11.8	13.0	15.6	16.4	17.1	18.8	16.7	16.9	16.7	16.8	18.4															
TECHNICAL	3	Raised 3/15/13	LEGENDS																										
BETA	.65	(1.00 = Market)	1.33 x Dividends p sh divided by Interest Rate																										
			Relative Price Strength																										
			2-for-1 split 6/11																										
			Options: Yes																										
			Shaded areas indicate recessions																										
2016-18 PROJECTIONS																													
Price	Gain	Ann'l Total																											
High 30	20 (+50%)	13%																											
Low 20	(Ntl)	4%																											
Insider Decisions																													
A S O N D J F M A																													
to Buy	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
Options	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
to Sell	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
Institutional Decisions																													
3Q2012	4Q2012	1Q2013																											
to Buy	63	54	86																										
to Sell	46	63	39																										
Hld's(000)	22150	22078	26409																										
			Percent shares traded	18	12	6																							
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	© VALUE LINE PUB. LLC 16-18											
7.74	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.36	12.55	14.15	Revenues per sh	16.00										
1.46	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.25	2.05	2.25	"Cash Flow" per sh	2.75										
.92	.73	.77	.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	.80	1.05	Earnings per sh A	1.35										
.53	.54	.54	.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.68	Div'd Decl'd per sh B	.90										
1.30	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.05	2.65	2.90	Cap'l Spending per sh	3.00										
6.50	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.30	13.40	13.85	Book Value per sh C	15.00										
25.24	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.91	47.75	48.00	Common Shs Outst'g D	50.0										
12.6	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	21.3	17.9	Avg Ann'l P/E Ratio	19.0										
.73	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.10	1.10	1.10	Relative P/E Ratio	1.25										
4.6%	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.4%	3.5%	Avg Ann'l Div'd Yield	3.6%										
CAPITAL STRUCTURE as of 3/31/13																													
Total Debt \$574.2 mill. Due in 5 Yrs \$65.3 mill.			277.1	315.6	320.7	334.7	367.1	410.3	449.4	460.4	501.8	560.0	590	650	Revenues (\$mill) E	600													
			19.4	26.0	27.2	25.6	31.2	39.8	40.6	37.7	36.1	42.7	40.0	53.0	Net Profit (\$mill)	87.0													
LT Debt \$434.2 mill. LT Interest \$29.5 mill. (LT interest earned: 6.7x; total int. cov.: 6.0x) (43% of Cap'l)			39.9%	39.6%	42.4%	37.4%	39.9%	37.7%	40.3%	39.5%	40.5%	30.5%	34.0%	39.0%	Income Tax Rate	39.0%													
Pension Assets-12/12 \$202.9 mill. Oblig. \$402.9 mill.			10.3%	3.2%	3.3%	10.6%	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	8.0%	8.5%	AFUDC % to Net Profit	10.0%													
Pfd Stock None			50.2%	48.6%	48.3%	43.5%	42.9%	41.6%	47.1%	52.4%	51.7%	52.1%	42.0%	46.5%	Long-Term Debt Ratio	50.0%													
Common Stock 47,728,775 shs. as of 5/1/13			49.1%	50.8%	51.1%	55.9%	56.6%	58.4%	52.9%	47.6%	48.3%	47.8%	58.0%	53.5%	Common Equity Ratio	50.0%													
MARKET CAP: \$950 million (Small Cap)			498.4	565.9	568.1	670.1	674.9	690.4	794.9	914.7	931.5	908.2	1050	1125	Total Capital (\$mill)	1400													
CURRENT POSITION			759.5	800.3	862.7	941.5	1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	1510	1575	Net Plant (\$mill)	1825													
Cash Assets			27.2	38.8	127.7																								
Other			86.7	107.8	104.0																								
Current Assets			113.9	146.6	231.7																								
Accts Payable			48.9	46.8	44.3																								
Debt Due			53.7	136.3	140.0																								
Other			49.3	59.7	72.5																								
Current Liab.			151.9	242.8	256.8																								
Fix. Chg. Cov.			278%	297%	325%																								
ANNUAL RATES			Past 10 Yrs	Past 5 Yrs	Est'd '09-'11																								
of change (per sh)			10 Yrs	5 Yrs	'16-'18																								
Revenues			3.5%	6.0%	5.0%																								
"Cash Flow"			4.5%	6.5%	5.0%																								
Earnings			4.0%	5.0%	5.5%																								
Dividends			1.0%	1.0%	6.0%																								
Book Value			5.0%	5.0%	5.5%																								
Cal-endar	QUARTERLY REVENUES (\$ mill.) ^E																												
	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																								
2010	90.3	118.3	146.3	105.5	460.4																								
2011	98.1	131.4	169.3	103.0	501.8																								
2012	116.7	143.6	171.8	121.6	560.0																								
2013	111.4	155	190	133.6	590																								
2014	135	165	210	140	650																								
Cal-endar	EARNINGS PER SHARE ^A																												
	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																								
2010	.05	.25	.49	.12	.91																								
2011	.03	.29	.50	.04	.86																								
2012	.03	.31	.56	.12	1.02																								
2013	d.03	.25	.45	.13	.80																								
2014	.05	.30	.55	.15	1.05																								
Cal-endar	QUARTERLY DIVIDENDS PAID ^B																												
	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																								
2009	.148	.148	.148	.148	.59																								
2010	.149	.149	.149	.149	.60																								
2011	.154	.154	.154	.154	.62																								
2012	.1575	.1575	.1575	.1575	.63																								
2013	.16	.16																											
BUSINESS: California Water Service Group provides regulated and nonregulated water service to roughly 471,900 customers in 83 communities in California, Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '12: residential, 66%; business, 18%; public authorities, 4%; industrial, 4%; other 8%. '12 reported depreciation rate: 2.8%. Has 1,131 employees. President, Chairman, and Chief Executive Officer: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwatergroup.com.																													
California Water will most likely have a down year in 2013. In the first quarter, the company posted a loss of \$0.03 a share versus our estimate of a \$0.04 gain mostly due to an accounting adjustment. Furthermore, over the remaining three quarters, the utility will probably experience negative year-over-year earnings comparisons. This is because of the combination that California Water is in need of rate relief and that the large equity offering it had in April should dilute share net by roughly 15%. For the full year, we expect share earnings to fall by over 20%, to \$0.80.																													
A rebound seems probable in 2014, however. Higher rates being in effect will be the main reason for the improved showing. In mid-2012, the company filed a request with the California Public Utility Commission seeking increased rates of nearly 20%. Based on some recent cases, we think that regulators will permit a subpar return on equity, but will overall, hand down a reasonable decision. All told, we expect the company's share net to reach \$1.05 next year.																													
The balance sheet has improved significantly. With the now completed 5.75-million-share offering, California Water has bolstered its finances. The long-term debt-to-total capital ratio has gone from 52% at year-end 2012 to 43% at the end of the first quarter, a large positive swing. Going forward, the utility won't be able to internally fund all of the capital expenditures required to update and modernize its infrastructure. Thus, it will probably issue debt which should result in moderate deterioration in the company's financial position.																													
California Water's dividend growth will be subpar in the near future for a water utility. Over the past five-and 10-year periods, the company's dividend growth has been a paltry 1%, low for even a nonutility stock. For the next several years we expect the payout to only grow 2%-3% versus about 5% for the industry.																													
All told, we think there are better opportunities elsewhere. True, CWT's yield is about 100 basis points higher than the Value Line average. Still, there are other water utilities with similar yields but better dividend growth prospects.																													
James A. Flood										July 19, 2013																			



(A) Diluted earnings. Next earnings report due mid-August.

(B) Dividends historically paid in mid-March, June, September, and December. = Div'd rein-

(C) In millions, adjusted for split.
(D) Includes intangibles. In '12: \$31.7 million/\$2.89 a share.

vestment plan available.

(C) In millions, adjusted for split.

(D) Includes intangibles. In '12: \$31.7 million/\$2.89 a share.

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Company's Financial Strength B+

Stock's Price Stability 90

Price Growth Persistence 35

Earnings Predictability 85

earn \$1.60 this year, and \$1.65 next year. Is this a sign that the regulatory climate in Connecticut is getting more constructive? Long regarded as one of the toughest places for utilities to operate, this latest ruling seems fair to both the ratepayers and the utility. (Value Line currently ranks Connecticut's regulatory climate as Below Average.)

The higher projected earnings could possibly give Connecticut Water a window to start a more generous dividend paying policy. Over the past five and 10 year periods, the utility's dividend growth rate has been roughly 1%-2%, well below average for a water utility. With this potential windfall, Connecticut Water could reward shareholders with perhaps more than the subpar 2% increase that we were previously expecting.

Connecticut Water shares carry a 4 (Below Average) rank for Timeliness. Despite the upbeat recent events, we should remind investors that the deal with regulators has not been finalized. Thus, we'd advise staying on the sidelines for the time being.

James A. Flood

July 19, 2013

MIDDLESEX WATER NDQ-MSEX										RECENT PRICE	20.68	P/E RATIO	20.7 (Trailing: 20.9 Median: 22.0)	RELATIVE P/E RATIO	1.18	DIV'D YLD	3.7%	VALUE LINE	Target Price Range								
TIMELINESS 2 Raised 6/7/13										High: 20.0	21.2	21.8	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	20.9			2016	2017	2018	
SAFETY 2 New 10/21/11										Low: 13.7	15.8	16.7	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6						
TECHNICAL 3 Raised 6/29/12										LEGENDS																	
BETA .70 (1.00 = Market)										1.20 x Dividends p sh divided by Interest Rate																	
2016-18 PROJECTIONS										3-for-2 split 1/02																	
										4-for-3 split 11/03																	
										Options: No																	
										Shaded areas indicate recessions																	

SJW CORP. NYSE: SJW				RECENT PRICE		25.95		P/E RATIO		20.0 (Trailing: 21.8 Median: 23.0)		RELATIVE P/E RATIO		1.14		DIV YLD		2.9%		VALUE LINE	
TIMELINESS 2 Raised 6/7/13				High: 15.1		15.0		19.6		27.8		45.3		43.0		35.1		30.4		28.2	
SAFETY 3 New 4/22/11				Low: 12.7		12.6		14.6		16.1		21.2		27.7		20.0		18.2		21.6	
TECHNICAL 3 Lowered 6/29/13				BETA .85 (1.00 = Market)																	
2016-18 PROJECTIONS				Price		Gain		Ann'l Total		Return											
High				40		(+55%)		14%		7%											
Low				30		(+15%)		7%		7%											
Insider Decisions				A S O N D J F M A		1 0 0 4 0 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0		0 0 0 0 1 0 0 0 0 0			
Institutional Decisions				3Q2012		4Q2012		1Q2013		2Q2013		3Q2013		4Q2013		1Q2014		2Q2014		3Q2014	
to Buy				31		34		46		34		34		34		34		34		34	
to Sell				31		30		20		30		30		30		30		30		30	
Hld'g (%)				8844		9043		10000		10000		10000		10000		10000		10000		10000	
Percent shares traded				15		10		5		5		5		5		5		5		5	

<p>(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.97; '04, \$3.78; '05, \$1.09; '06, \$16.36; '08, \$1.22; '10, 46¢. Next earnings report due late August. Quarterly eggs. may not</p>	<p>add due to rounding. (B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.</p>	<p>(C) In millions, adjusted for stock splits.</p>
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Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	60
Earnings Predictability	80

YORK WATER NDQ:YORW				RECENT PRICE	19.74	P/E RATIO	25.3	(Trailing: 26.7 Median: 25.0)	RELATIVE P/E RATIO	1.44	DIV'D YLD	2.8%	VALUE LINE		
TIMELINESS	4	New 7/19/13	High: 13.4	13.5	14.0	17.9	21.0	18.5	16.5	18.0	18.0	18.1	18.5	19.8	Target Price Range 2016 2017 2018
SAFETY	2	New 7/19/13	Low: 8.2	9.3	11.0	11.7	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6	64
TECHNICAL	3	New 7/19/13	LEGENDS												48
BETA	.70	(1.00 = Market)	1.10 x Dividends p sh divided by Interest Rate												40
			Relative Price Strength												32
			2-for-1 split 5/02												24
			3-for-2 split 9/06												20
			Options: No												16
			Shaded areas indicate recessions												12
															8
															6

May 2, 2003

WATER UTILITY INDUSTRY

1421

Infrastructure costs in the Water Utility Industry will rise dramatically over the coming 20 years. Consequently, larger companies are acquiring smaller ones in an effort to achieve economies of scale.

Stocks in the Water Utility Industry are ranked near the middle of the *Value Line* universe. Nevertheless, conservative investors can find appealing choices here due to favorable Safety ranks and healthy dividend payouts.

Industry Consolidation

Infrastructure costs in the water utility industry will likely soar over the next two decades. Water utility companies must constantly repair and upgrade their existing water/wastewater systems in order to comply with increasingly stringent rules issued by the Environmental Protection Agency (EPA) and local regulators. Many of the facilities and pipes that transport water were put in place over 100 years ago. The costs of replacing these systems is considerably higher now than they were in the past, even adjusting for inflation. Too, the ongoing depletion of nearby sources of water compels many of the utilities to obtain water from more-distant, more-expensive sources. Water is difficult and costly to transport because it is heavy and incompressible. Nevertheless, utilities must continue to keep pace with the rising demand for drinking water from growing residential and industrial customers. Recent estimates are that it will cost hundreds of billions of dollars to replace and upgrade failing water infrastructures over the next 20 years. This amounts to more than the entire current assets of the water industry in the United States. Much of these costs will likely be financed by federal spending and higher water rates. Nonetheless, water utilities are going to have to ante up much greater capital investments over the coming years.

The costs of staying in compliance with drinking water laws are especially onerous for smaller regional companies because these companies have fewer customers over which to spread their costs. Small and mid-sized water utilities tend to welcome takeover offers from larger, better-capitalized companies so that they can utilize the bigger firm's superior resources. For instance, the EPA's new rules on the allowable levels of arsenic in drinking water (10 parts per billion by January, 2006) is compelling some smaller utilities to merge with larger ones in

INDUSTRY TIMELINESS: 47 (of 98)

an effort to remain in compliance with the new standards. By purchasing these smaller entities, large utilities seek to achieve economies of scale. Also, a bigger company gains greater geographic diversity that can reduce its susceptibility to unfavorable weather patterns and potentially burdensome local regulators. For example, the regulatory climate in California has been extremely costly for utilities in the past few years, so companies have been actively looking for acquisition targets outside of the state.

Recent Regulatory Issues

Budget deficits at the federal, state, and local levels ought to hurt water utilities. Lawmakers will probably resist committing scarce public funds towards major infrastructure projects. This is especially frustrating for water companies since it comes at a time when they are dishing out funds to improve security and protect their water-distribution systems. We expect the industry to lobby for grants, changes in the tax code, and government loans. Also, there is a new bill in the U.S. House of Representatives that would make compliance with federal drinking water standards a defense in lawsuits involving contaminants covered by such standards. If enacted into law, this rule could reduce water companies' legal expenses since it would make it much harder for customers to successfully sue for contaminated water.

SDWA Regulations

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorizes the EPA to work with state and local governments to periodically test for impurities in drinking water. The EPA mandates the acceptable level of certain contaminants per a specified amount of water. Water utilities routinely spend large portions of their annual capital budgets on efforts to remain in compliance with SDWA guidelines. These companies must also comply with the 1972 Clean Water Act, and numerous other state and local laws.

Investment Advice

The water utility stocks in this review are unlikely to outperform the year-ahead market. Nonetheless, they offer above-average Safety ranks, attractive dividend yields, and decent risk-adjusted total-return potential.

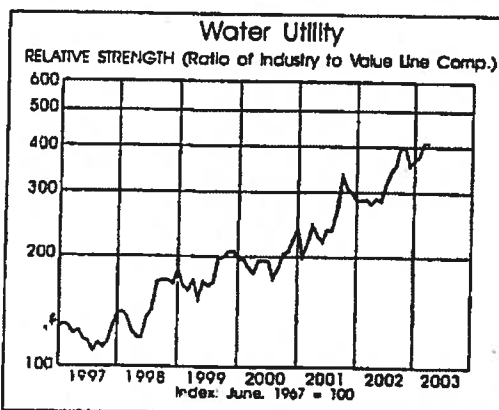
Joseph Espallat

Composite Statistics: Water Utility Industry

1999	2000	2001	2002	2003	2004		06-08
637.2	704.3	751.8	794.4	833	880	Revenues (\$mil)	1690
72.4	90.9	95.4	105.6	110	130	Net Profit (\$mil)	180
40.0%	41.2%	40.2%	38.8%	38.0%	38.5%	Income Tax Rate	40.0%
--	--	--	--	ARI	5%	AFUDC % to Net Profit	5%
51.1%	50.3%	52.4%	53.9%	53.0%	51.5%	Long-Term Debt Ratio	51.0%
48.3%	49.3%	47.2%	45.9%	48.5%	48.5%	Common Equity Ratio	48.0%
1444.7	1661.0	1840.7	1973.6	2200	2380	Total Capital (\$mil)	2900
2100.3	2342.5	2532.3	2751.1	2990	3180	Net Plant (\$mil)	3650
7.4%	7.0%	6.8%	7.0%	6.5%	7.0%	Return on Total CapT	7.5%
11.5%	10.7%	10.8%	11.2%	10.0%	10.5%	Return on Str. Equity	12.0%
11.5%	10.8%	10.7%	11.2%	10.0%	11.0%	Return on Com Equity	12.0%
3.8%	3.6%	3.3%	3.9%	3.0%	4.0%	Retained to Com Eq	5.5%
68%	67%	69%	68%	75%	65%	All Div'ds to Net Prof	54%
19.5	18.6	22.8	21.5			Avg Ann'l P/E Ratio	13.5
1.11	1.21	1.16	1.17			Relative P/E Ratio	.90
3.5%	3.6%	3.1%	3.1%			Avg Ann'l Div'd Yield	3.0%

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EXHIBIT DHC-10
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Docket #2013-201-WS

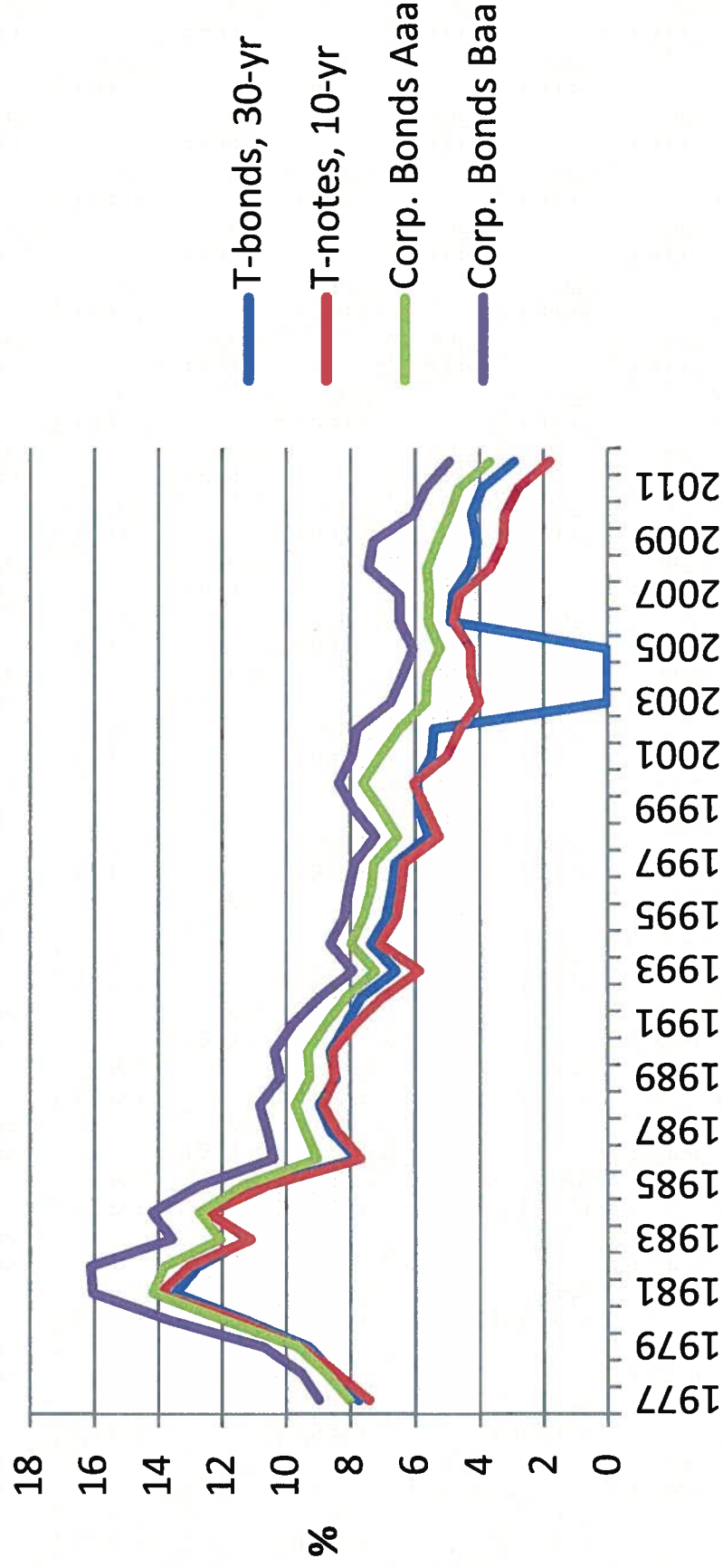
Consumer Price Index - Urban Consumers

CPI-U 1982-84=100

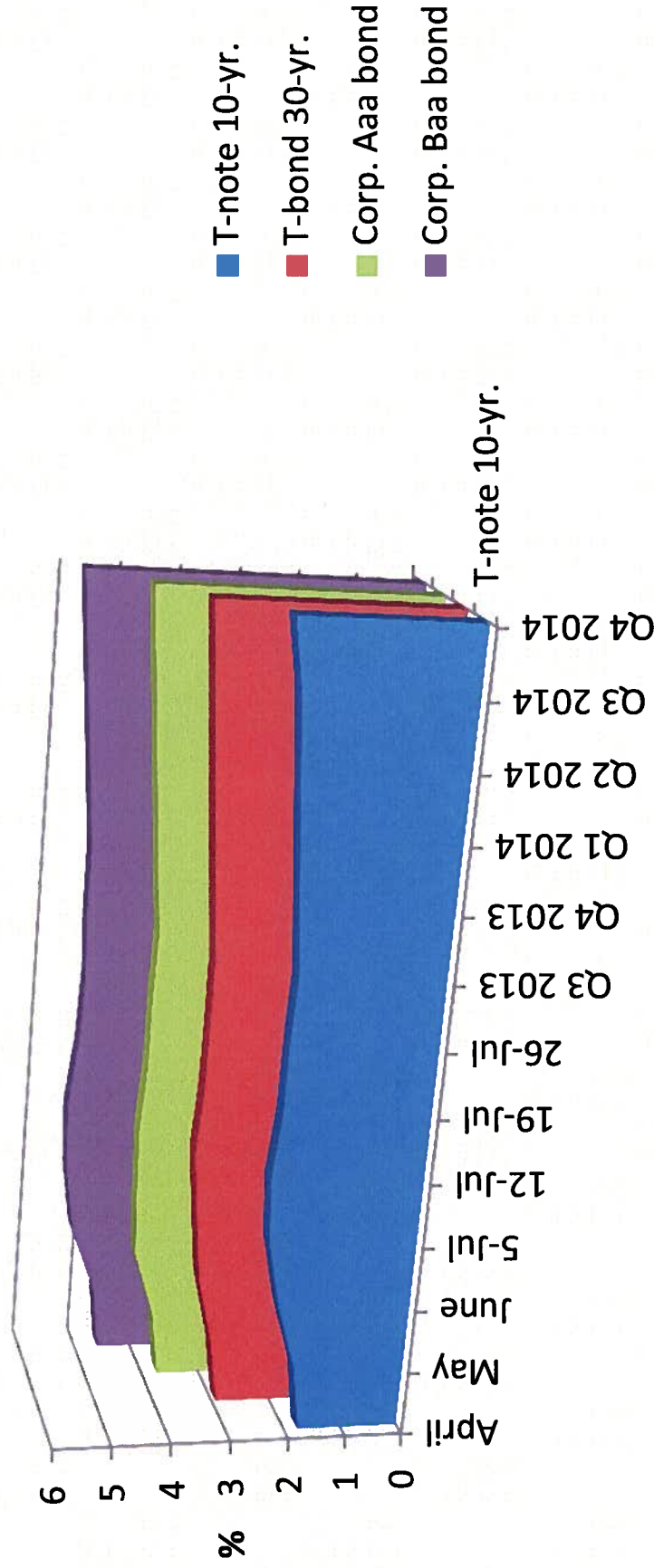
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Annual % Δ
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7	153.6	153.5	152.4	
1996	154.4	154.9	155.7	156.3	156.6	156.7	157.0	157.3	157.8	158.3	158.6	158.6	156.9	2.95%
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5	161.3	160.5	2.29%
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0	164.0	163.9	163.0	1.56%
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3	168.3	166.6	2.21%
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0	174.1	174.0	172.2	3.36%
2001	175.1	175.8	176.2	176.9	177.7	178.0	177.5	177.5	178.3	177.7	177.4	176.7	177.1	2.85%
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3	180.9	179.9	1.58%
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5	184.3	184.0	2.28%
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0	190.3	188.9	2.66%
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	195.3	3.39%
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	201.8	201.6	3.23%
2007	202.4	203.5	205.4	206.7	207.9	208.4	208.3	207.9	208.5	210.2	208.9	210.0	207.3	2.85%
2008	211.1	211.7	213.5	214.8	216.6	218.8	220.0	219.1	218.8	216.6	212.4	210.2	215.3	3.84%
2009	211.1	212.2	212.7	213.2	213.9	215.7	215.4	215.8	216.0	216.2	216.3	215.9	214.5	-0.36%
2010	216.7	216.7	217.6	218.0	218.2	218.0	218.0	218.3	218.4	218.7	218.8	219.2	218.1	1.64%
2011	220.2	221.3	223.5	224.9	226.0	225.7	225.9	226.5	226.9	226.4	226.2	225.7	224.9	3.16%
2012	226.7	227.7	229.4	230.1	229.8	229.5	229.1	230.4	231.4	231.3	230.2	229.6	229.6	2.07%
2013	230.3	232.2	232.8	232.5	232.9	233.5	233.6	233.9						
	1.59%	1.98%	1.47%	1.06%	1.36%	1.75%	1.96%	1.52%	Month over Same Month Last Year					

Source: U.S. Dept. of Labor, Bureau of Labor Statistics; except last line and last column are calculated

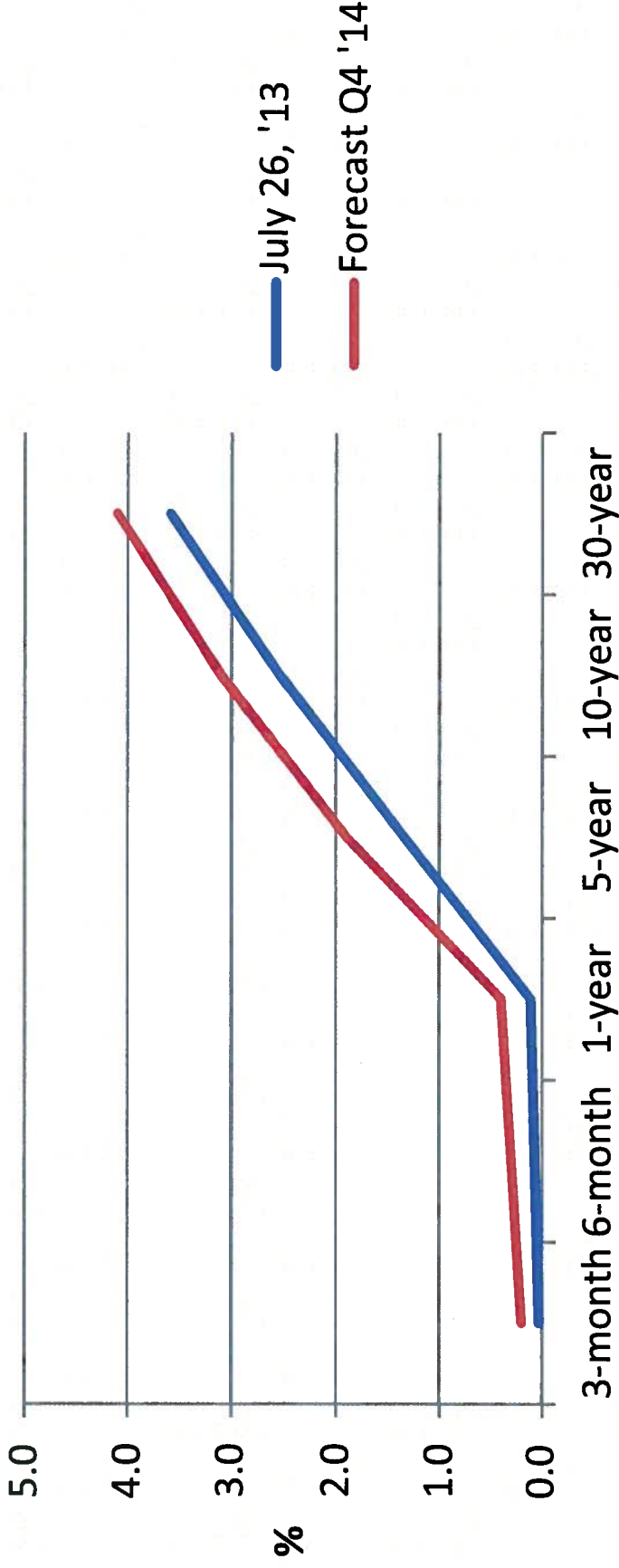
Bond Rates over Time

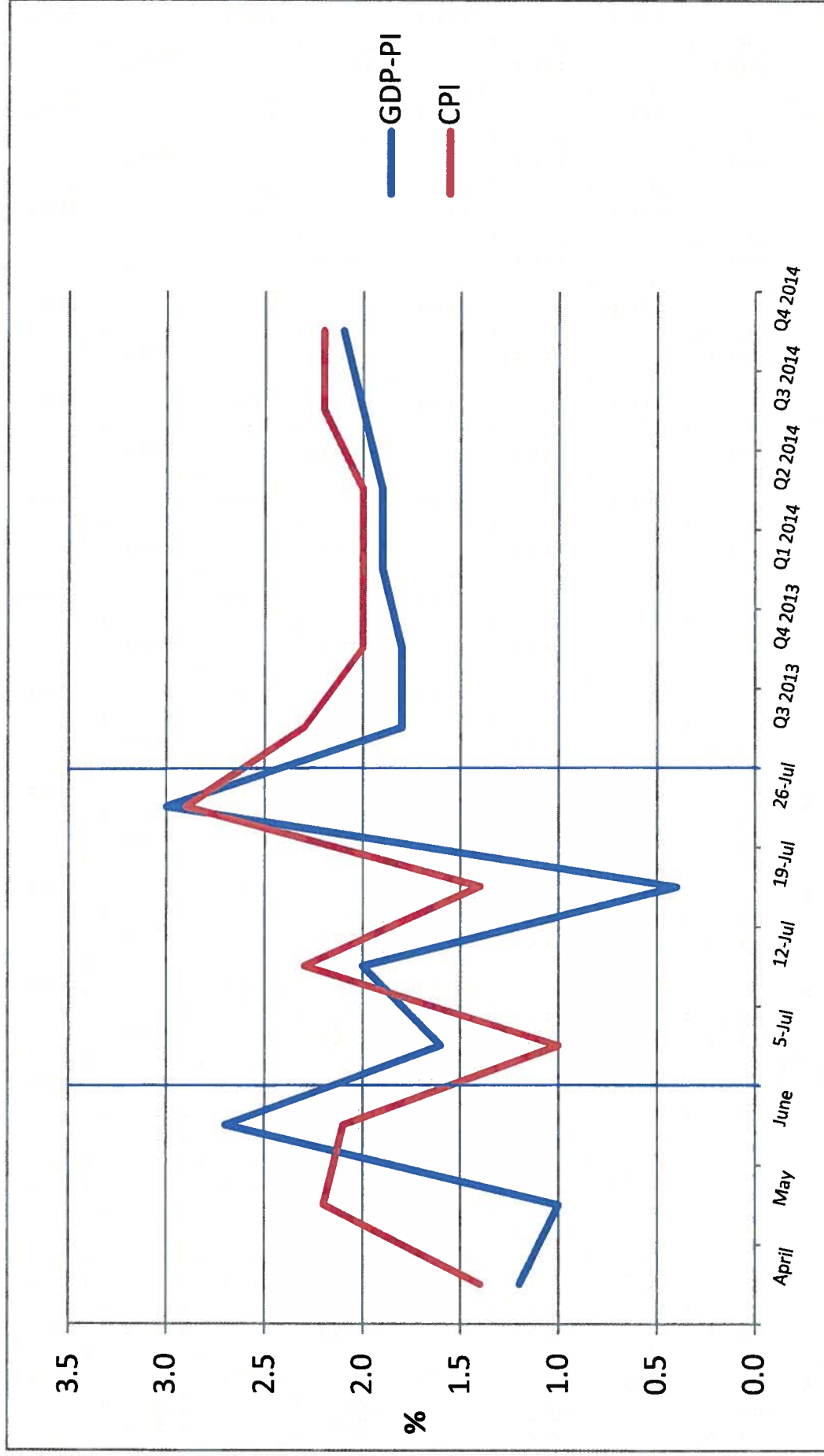


Recent and Forecasted Bond Rates



U.S. Treasuries, Yield Curve, Recent & Forecasted





S.C. Office of Regulatory Staff

CEM ANALYSIS

Docket #2013-201-WS

Company	Ticker	Beta	Beta 10-Year	Book Value Growth 10- Year	Proj Book Value Growth Rate	EPS Growth 10-Year	Total Return 2004	Total Return 2008	Total Return 2012
Crown Holdings	CCK	0.85	0.84	-25	85.5	33.5	51.66	-25.15	9.62
Sturm, Ruger & Co.	RGR	0.8	0.56	0.5	25.5	14	-16.25	-27.9	39.51
Ross Stores	ROST	0.8	0.71	14.5	22	18.5	9.79	17.63	14.61
Alexion Pharmac.	ALXN	0.75	0.66	11	22		48.15	-3.53	31.11
Sherwin-Williams	SHW	0.65	0.68	5.5	21.5	10	30.7	5.58	74.49
ITT Educational	ESI	0.7	0.72	12.5	21	29	1.24	11.39	-69.57
Boston Beer 'A'	SAM	0.75	0.73	12.5	20.5	22	17.26	-24.57	23.85
Dean Foods	DF	0.7	0.74	-10.5	20.5	-4	0.24	-30.51	47.41
Monster Beverage	MNST	0.7	0.54	40.5	20	54			
Int'l Business Mach.	IBM	0.85	0.74	3.5	20	12	7.19	-20.76	5.94
Varian Medical Sys.	VAR	0.85	0.86	15.5	19.5	20.5	25.15	-32.82	4.63
Coca-Cola Bottling	COKE	0.7	0.48	16	18.5	11	10.01	-20.21	15.35
Casey's Gen'l Stores	CASY	0.7	0.64	6	18.5	14	3.75	-22.25	4.28
Cerner Corp.	CERN	0.85	0.92	17.5	17.5	22.5			
Brown-Forman 'B'	BF/B	0.7	0.68	7	17.5	10.5	6.09	-11.29	19.27
PetSmart, Inc.	PETM	0.8	0.77	12	17	27	49.86	-21.15	34.89
Cyberonics	CYBX	0.8	0.67	10	16		-35.25	25.91	56.81
Ecolab Inc.	ECL	0.8	0.65	16.5	15.5	12.5	29.72	-30.51	25.96
Advance Auto Parts	AAP	0.85	0.63	16	15.5	25	-45.1	-10.82	4.25
TJX Companies	TJX	0.8	0.59	14	15.5	14	14.77	-27.42	32.96
Copart, Inc.	CPRT	0.85	0.9	10	15.5	16.5	58.55	-36.1	23.2
Silgan Holdings	SLGN	0.7	0.55	43	15	14.5	44.83	-6.69	8.72
Edwards Lifesciences	EW	0.7	0.52	11.5	15	26	37.17	19.48	27.54
Monro Muffler Brake	MNRO	0.7	0.53	10	14.5	16	26.75	32.72	-8.76
Microsoft Corp.	MSFT	0.85	0.94	4	14.5	11			
3M Company	MMM	0.85	0.89	11.5	14	10.5	-1.75	-29.8	16.67
Int'l Flavors & Frag.	IFF	0.8	0.88	8.5	14	8.5	24.85	-36.67	29.72
Papa John's Int'l	PZZA	0.8	0.63	8.5	14	7.5	3.18	-18.81	45.78
CSG Systems Int'l	CSGS	0.8	0.88	6	14	-0.5	49.72	18.68	23.59
Gilead Sciences	GILD	0.7	0.54	32.5	13.5		20.08	11.15	79.45
Computer Prog. & Sys.	CPSI	0.75	0.52	12.5	13.5	10	17.89	25.27	1.92
Kroger Co.	KR	0.6	0.51	6	13.5	3.5	-5.24	0.13	9.71

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Company	Ticker	Beta	Beta 10-Year	Book Value Growth 10- Year	Proj Book Value Growth Rate	EPS Growth 10-Year	Total Return 2004	Total Return 2008	Total Return 2012
DaVita Inc.	DVA	0.65	0.54	26.5	13	22	52.04	-12.03	45.8
Sanderson Farms	SAFM	0.6	0.54	14	13	0.5	62.56	3.79	-3.7
Alliant Techsystems	ATK	0.8	0.86	13	13	12.5	13.19	-24.61	10.15
ResMed Inc.	RMD	0.8	0.66	26.5	12.5	20.5	23.01	-28.65	65.1
CACI Int'l	CACI	0.85	0.88	17.5	12.5	17	40.13	0.72	-1.59
Rollins, Inc.	ROL	0.85	0.54	15	12.5	19.5	17.9	-4.42	1.15
Laboratory Corp.	LH	0.7	0.61	12.5	12.5	16.5	34.83	-14.72	0.76
Myriad Genetics	MYGN	0.75	0.6	10.5	12.5		75.04	42.74	30.13
Chemed Corp.	CHE	0.8	0.51	8	12.5	18.5	46.84	-28.42	35.44
Carriage Services	CSV	0.75	0.93	3	12.5	64.5	33.51	-77.16	114.66
Henry (Jack) & Assoc.	JKHY	0.85	0.75	13	12	11			
OSI Systems	OSIS	0.85	0.99	9	12	19.5	18.22	-47.68	31.28
Aaron's Inc.	AAN	0.85	0.8	14.5	11.5	18.5	83.92	27.57	6.23
O'Reilly Automotive	ORLY	0.7	0.49	14.5	11.5	20	16.83	-5.21	11.85
Exxon Mobil Corp.	XOM	0.75	0.59	12	11.5	14	28.04	-13.14	4.72
Perrigo Co.	PRGO	0.7	0.59	12	11.5	22.5	10.77	-7.16	7.25
Total System Svcs.	TSS	0.85	0.95	10.5	11.5	8			
Universal Corp.	UVV	0.8	0.98	8	11.5	1	11.91	-39.48	13.14
Heartland Express	HTLD	0.8	0.66	4.5	11.5	6.5			
Amer. Tower 'A'	AMT	0.8	0.64	-4	11.5		70.06	-31.17	30.43
Vertex Pharmac.	VRTX	0.85	0.6	-5	11.5		2.13	30.78	26.17
United Natural Foods	UNFI	0.75	0.79	17	11	17.5	73.21	-43.82	33.94
Medtronic, Inc.	MDT	0.85	0.8	12.5	11	12			
Actavis, Inc.	ACT	0.7	0.48	6	11	12.5	-28.67	-2.1	42.53
Celgene Corp.	CELG	0.8	0.59	29.5	10.5		18.18	19.63	16.08
McKesson Corp.	MCK	0.75	0.74	8.5	10.5	14.5	-1.41	-40.37	25.59
RLI Corp.	RLI	0.8	0.47	8	10.5	12	12.44	9.62	-2.68
Lockheed Martin	LMT	0.85	0.87	-11	10.5	16.5	9.97	-18.58	19.5
Comtech Telecom.	CMTL	0.7	0.64	20.5	10	24	30.64	-15.16	-6.91
Schein (Henry)	HSIC	0.8	0.74	13	10	14	3.05	-40.24	24.82
Johnson & Johnson	JNJ	0.65	0.53	11.5	10	10	25.14	-7.77	10.83
Synopsys, Inc.	SNPS	0.8	0.81	10.5	10	6.5	-42.26	-28.58	17.06

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Company	Ticker	Beta	Beta 10-Year	Book Value Growth 10- Year	Proj Book Value Growth Rate	EPS Growth 10-Year	Total Return 2004	Total Return 2008	Total Return 2012
Sysco Corp.	SY	0.7	0.74	9.5	10	8.5			
Baxter Int'l Inc.	BAX	0.7	0.54	8.5	10	9.5	15.22	-6.24	38.42
ConAgra Foods	CAG	0.65	0.69	4.5	10	2	16.06	-28.06	14.94
Amgen	AMGN	0.65	0.53	12.5	9.5	16.5			
Becton, Dickinson	BDX	0.65	0.68	10	9.5	12.5	39.74	-16.92	7.23
Aon plc	AON	0.7	0.7	7	9.5	5.5	2.17	-2.87	20.29
IAC/InterActiveCorp	IACI	0.75	0.77	-7	9.5		-18.6	-35.92	12.6
Knight Transportation	KNX	0.85	0.71	12	9	11	45.15	9.82	-1.75
Owens & Minor	OMI	0.75	0.47	12	9	10			
Harris Teeter Super.	HTSI	0.65	0.78	7	9	7	23.66	-19.07	-7.03
Genuine Parts	GPC	0.8	0.75	3.5	9	5.5	36.9	-15.05	7.24
Stryker Corp.	SYK	0.8	0.97	21.5	8.5	17.5			
Quest Diagnostics	DGX	0.75	0.57	13	8.5	15.5	31.42	-1.07	1.5
Landauer, Inc.	LDR	0.85	0.79	9.5	8.5	5	16.22	46.35	23.7
BMC Software	BMC	0.85	0.75	2	8.5	38.5			
Cubist Pharm.	CBST	0.8	0.73	19	8		-3.03	17.8	6.13
CVS Caremark Corp.	CVS	0.85	0.83	18	8	13.5	25.66	-27.16	20.3
Berkley (W.R.)	WRB	0.7	0.46	17	8	29.5	35.85	4.91	10.76
DeVry Inc.	DV	0.7	0.6	16.5	8	17	-30.92	10.76	-37.55
NIKE, Inc. 'B'	NKE	0.8	0.83	12.5	8	14.5			
Waste Connections	WCN	0.7	0.53	12	8	12	36.02	2.17	3.16
J&J Snack Foods	JJSF	0.7	0.76	10.5	8	13.5	30.19	16.2	21.06
Automatic Data Proc.	ADP	0.8	0.67	4.5	8	5.5	13.46	-9.05	8.52
Raytheon Co.	RTN	0.75	0.72	-1	8	12	32.2	-14.22	23.35
Walgreen Co.	WAG	0.8	0.97	13	7.5	11	7.29	-34.38	15.31
Navigant Consulting	NCI	0.85	0.76	12.5	7.5	14	41.04	16.09	-2.19
WD-40 Co.	WDFC	0.7	0.67	11.5	7.5	5	-16.91	-23.07	19.63
West Pharmac. Svcs.	WST	0.8	0.83	10	7.5	10	50.91	-5.71	46.63
Lilly (Eli)	LLY	0.8	0.7	6.5	7.5	4.5	-17.57	-21.23	24.27
Spartan Stores	SPTN	0.7	0.56	1	7.5	1	32.8	2.64	-15.38
Shenandoah Telecom.	SHEN	0.85	0.8	10	7	12.5	18.69	18.53	49.68
AmerisourceBergen	ABC	0.7	0.67	7.5	7	15	4.72	-19.81	17.95

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Company	Ticker	Beta	Beta 10-Year	Book Value Growth 10- Year	Proj Book Value Growth Rate	EPS Growth 10-Year	Total Return 2004	Total Return 2008	Total Return 2012
Cardinal Health	CAH	0.8	0.78	6.5	7	3.5			
Healthcare Svcs.	HCSG	0.75	0.58	6.5	7	16.5	65.23	-22.13	35.33
Haverty Furniture	HVT	0.85	0.77	2.5	7	-11	-5.61	5.83	59.12
Costco Wholesale	COST	0.7	0.7	9.5	6.5	9.5	31.15	-23.98	19.92
Village Super Market	VLGEA	0.75	0.54	8.5	6.5	8.5	23.37	21.82	23.41
Marsh & McLennan	MMC	0.8	0.77	2.5	6.5	-2.5	-29.8	-5.54	12.04
Wiley (John) & Sons	JW/A	0.85	0.78	14	6	11	35.04	-15.86	-10.53
ManTech Int'l 'A'	MANT	0.85	0.53	14	6	14	-4.85	23.67	-14.18
Markel Corp.	MKL	0.8	0.61	12.5	6		43.58	-39.12	4.52
Smucker (J.M.)	SJM	0.7	0.57	12.5	6	12	6.11	-5.03	13.14
Coca-Cola	KO	0.6	0.54	12.5	6	9	-16.12	-24.11	6.51
Greatbatch, Inc.	GB	0.75	0.85	8.5	6	13	-46.96	32.37	5.16
MAXIMUS Inc.	MMS	0.8	0.81	6.5	6	10	-20.47	-7.99	53.99
Bristol-Myers Squibb	BMJ	0.7	0.56	6	6	-1.5	-7.27	-6.05	-3.78
Weis Markets	WMK	0.65	0.68	3	6	4	13.17	-12.88	0.83
FTI Consulting	FCN	0.75	0.56	19	5.5	13.5			
Biogen Idec Inc.	BIIB	0.75	0.86	15.5	5.5	24			
Chubb Corp.	CB	0.8	0.52	11	5.5	19	15.43	-4.09	11.28
Teleflex Inc.	TFX	0.8	0.9	9.5	5.5	2.5	9.45	-18.56	18.91
Forrester Research	FORR	0.75	0.87	3.5	5.5	4.5	1.07	0.68	-19.95
ICU Medical	ICUI	0.7	0.55	11	5	10	-20.27	-7.97	35.4
Pfizer, Inc.	PFE	0.75	0.71	14.5	4.5	-1.5	-22.31	-16.85	20.41
Techno Corp.	TECH	0.7	0.7	14	4.5	14.5			
Bemis Co.	BMS	0.85	0.72	7	4.5	4			
McDonald's Corp.	MCD	0.6	0.49	6.5	4.5	14	31.48	8.55	-9.27
Endo Health Solns.	ENDP	0.75	0.69	17	4		8.52	-2.96	-24.04
Forest Labs.	FRX	0.8	0.74	15.5	4	10			
Snyder's-Lance	LNCE	0.65	0.7	7.5	4	2	31.99	16.21	10.15
Tootsie Roll Ind.	TR	0.7	0.69	4.5	4	-1.5	-0.08	-2.6	16.4
Analogic Corp.	ALOG	0.85	0.78	4	4	5	9.73	-59.37	30.38
Procter & Gamble	PG	0.6	0.5	18.5	3.5	9	12.38	-13.77	5.18
Waste Management	WM	0.8	0.61	4.5	3	5.5	3.83	4.79	7.64

CEM ANALYSIS

Docket #2013-201-WS

Company	Ticker	Beta	Beta 10-Year	Book Value Growth 10- Year	Proj Book Value Growth Rate	EPS Growth 10-Year	Total Return 2004	Total Return 2008	Total Return 2012
Washington Post	WPO	0.85	0.98	7	2.5	4.5	25.21	-49.91	-0.5
Nash Finch Co.	NAFC	0.7	0.7	5.5	2.5	4.5	72.83	29.69	-24.89
World Wrestling Ent.	WWE	0.8	0.72	-2	2	-1	-6.24	-17.26	-10.35
Merck & Co.	MRK	0.8	0.67	9.5	1.5	2			
CenturyLink Inc.	CTL	0.7	0.69	6.5	1.5	1	9.57	-29.58	13.22
PetMed Express	PETS	0.75	0.89	43.5	0.5		4.97	45.7	12.95
NutriSystem Inc.	NTRI	0.85	0.93	33	-4				
Block (H&R)	HRB	0.8	0.73	2	-5	2			
Safeway Inc.	SWY	0.65	0.8	2	-39	-3	-9.9	-29.66	-10.75
	<u>mean</u>	<u>0.761</u>	<u>0.698</u>	<u>10.533</u>	<u>10.164</u>	<u>12.234</u>	<u>17.033</u>	<u>-8.914</u>	<u>16.166</u>
	<u>median</u>	<u>0.75</u>	<u>0.7</u>	<u>10.5</u>	<u>9.5</u>	<u>12</u>	<u>16.06</u>	<u>-10.82</u>	<u>13.22</u>
				<u>10.516</u>	<u>9.832</u>				<u>Overall Averages</u>
									10.174

137 companies

"<.70
">.69 & <.80
>=.80

10.4480 8.9772 9.713

See Exhibit DHC-7

5	0.56	"<.70	3.4815	Weighted stratified	9.943
3	0.33	">.69 & <.80	3.3580	results	
1	0.11	>=.80	1.1768		

10.5074 8.0163 9.262

Overall CEM Results 9.603

Press Release

FEDERAL RESERVE press release



Release Date: July 31, 2013

For immediate release

Information received since the Federal Open Market Committee met in June suggests that economic activity expanded at a modest pace during the first half of the year. Labor market conditions have shown further improvement in recent months, on balance, but the unemployment rate remains elevated. Household spending and business fixed investment advanced, and the housing sector has been strengthening, but mortgage rates have risen somewhat and fiscal policy is restraining economic growth. Partly reflecting transitory influences, inflation has been running below the Committee's longer-run objective, but longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects that, with appropriate policy accommodation, economic growth will pick up from its recent pace and the unemployment rate will gradually decline toward levels the Committee judges consistent with its dual mandate. The Committee sees the downside risks to the outlook for the economy and the labor market as having diminished since the fall. The Committee recognizes that inflation persistently below its 2 percent objective could pose risks to economic performance, but it anticipates that inflation will move back toward its objective over the medium term.

To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee decided to continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month and longer-term Treasury securities at a pace of \$45 billion per month. The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. Taken together, these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

The Committee will closely monitor incoming information on economic and financial developments in coming months. The Committee will continue its purchases of Treasury and agency mortgage-backed securities, and employ its other policy tools as appropriate, until the outlook for the labor market has improved substantially in a context of price stability. The Committee is prepared to increase or reduce the pace of its purchases to maintain appropriate policy accommodation as the outlook for the labor market or inflation changes. In determining the size, pace, and composition of its asset purchases, the Committee will continue to take appropriate account of the likely efficacy and costs of such purchases as well as the extent of progress toward its economic objectives.

To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the asset purchase program ends and the economic recovery

strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

Voting for the FOMC monetary policy action were: Ben S. Bernanke, Chairman; William C. Dudley, Vice Chairman; James Bullard; Elizabeth A. Duke; Charles L. Evans; Jerome H. Powell; Sarah Bloom Raskin; Eric S. Rosengren; Jeremy C. Stein; Daniel K. Tarullo; and Janet L. Yellen. Voting against the action was Esther L. George, who was concerned that the continued high level of monetary accommodation increased the risks of future economic and financial imbalances and, over time, could cause an increase in long-term inflation expectations.

Press Release

FEDERAL RESERVE press release



Release Date: September 18, 2013

For immediate release

Information received since the Federal Open Market Committee met in July suggests that economic activity has been expanding at a moderate pace. Some indicators of labor market conditions have shown further improvement in recent months, but the unemployment rate remains elevated. Household spending and business fixed investment advanced, and the housing sector has been strengthening, but mortgage rates have risen further and fiscal policy is restraining economic growth. Apart from fluctuations due to changes in energy prices, inflation has been running below the Committee's longer-run objective, but longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects that, with appropriate policy accommodation, economic growth will pick up from its recent pace and the unemployment rate will gradually decline toward levels the Committee judges consistent with its dual mandate. The Committee sees the downside risks to the outlook for the economy and the labor market as having diminished, on net, since last fall, but the tightening of financial conditions observed in recent months, if sustained, could slow the pace of improvement in the economy and labor market. The Committee recognizes that inflation persistently below its 2 percent objective could pose risks to economic performance, but it anticipates that inflation will move back toward its objective over the medium term.

Taking into account the extent of federal fiscal retrenchment, the Committee sees the improvement in economic activity and labor market conditions since it began its asset purchase program a year ago as consistent with growing underlying strength in the broader economy. However, the Committee decided to await more evidence that progress will be sustained before adjusting the pace of its purchases. Accordingly, the Committee decided to continue purchasing additional agency mortgage-backed securities at a pace of \$40 billion per month and longer-term Treasury securities at a pace of \$45 billion per month. The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. Taken together, these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative, which in turn should promote a stronger economic recovery and help to ensure that inflation, over time, is at the rate most consistent with the Committee's dual mandate.

The Committee will closely monitor incoming information on economic and financial developments in coming months and will continue its purchases of Treasury and agency mortgage-backed securities, and employ its other policy tools as appropriate, until the outlook for the labor market has improved substantially in a context of price stability. In judging when to moderate the pace of asset purchases, the Committee will, at its coming meetings, assess whether incoming information continues to support the Committee's expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective. Asset purchases are not on a

preset course, and the Committee's decisions about their pace will remain contingent on the Committee's economic outlook as well as its assessment of the likely efficacy and costs of such purchases.

To support continued progress toward maximum employment and price stability, the Committee today reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the asset purchase program ends and the economic recovery strengthens. In particular, the Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored. In determining how long to maintain a highly accommodative stance of monetary policy, the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

Voting for the FOMC monetary policy action were: Ben S. Bernanke, Chairman; William C. Dudley, Vice Chairman; James Bullard; Charles L. Evans; Jerome H. Powell; Eric S. Rosengren; Jeremy C. Stein; Daniel K. Tarullo; and Janet L. Yellen. Voting against the action was Esther L. George, who was concerned that the continued high level of monetary accommodation increased the risks of future economic and financial imbalances and, over time, could cause an increase in long-term inflation expectations.

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UTILITIES SERVICES OF SOUTH CAROLINA, INC.
Docket #2013-201-WS**

FEDERAL RESERVE BALANCE SHEET, AS OF 18 SEPTEMBER 2013

Millions of dollars

Reserve Bank credit, related items, and reserve balances of depository institutions at Federal Reserve Banks	Averages of daily figures			Wednesday
	Week ended 18-Sep-13	Change from week ended		18-Sep-13
		11-Sep-13	19-Sep-12	
Reserve Bank credit	3,672,426	+ 56,429	+ 892,761	3,679,297
Securities held outright ¹	3,448,758	+ 54,582	+ 862,091	3,455,478
U.S. Treasury securities	2,047,534	+ 9,253	+ 404,071	2,052,055
Bills ²	0	0	0	0
Notes and bonds, nominal ²	1,947,007	+ 7,972	+ 385,335	1,951,525
Notes and bonds, inflation-indexed ²	87,209	+ 1,191	+ 15,425	87,209
Inflation compensation ³	13,317	+ 89	+ 3,309	13,321
Federal agency debt securities ²	63,974	- 456	- 23,188	63,652
Mortgage-backed securities ⁴	1,337,250	+ 45,784	+ 481,208	1,339,771
Unamortized premiums on securities held outright ⁵	203,834	+ 686	+ 50,855	204,077
Unamortized discounts on securities held outright ⁵	-6,296	- 590	- 4,542	-6,439
Repurchase agreements ⁶	0	0	0	0
Loans	286	+ 13	- 1,527	302
Primary credit	30	+ 12	+ 17	51
Secondary credit	0	0	0	0
Seasonal credit	154	+ 1	+ 33	149
Term Asset-Backed Securities Loan Facility ⁷	102	0	- 1,577	102
Other credit extensions	0	0	0	0
Net portfolio holdings of Maiden Lane LLC ⁸	1,498	+ 5	- 394	1,496
Net portfolio holdings of Maiden Lane II LLC ⁹	64	0	+ 3	64
Net portfolio holdings of Maiden Lane III LLC ¹⁰	22	0	- 1,563	22
Net portfolio holdings of TALF LLC ¹¹	112	- 12	- 739	112
Float	-668	+ 101	- 6	-651
Central bank liquidity swaps ¹²	262	- 58	- 14,480	262
Other Federal Reserve assets ¹³	24,555	+ 1,703	+ 3,063	24,575
Foreign currency denominated assets ¹⁴	23,822	+ 152	- 2,160	23,880
Gold stock	11,041	0	0	11,041
Special drawing rights certificate account	5,200	0	0	5,200

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Treasury currency outstanding ¹⁵	45,301	+	14	+	687	45,301
Total factors supplying reserve funds	3,757,791	+	56,596	+	891,289	3,764,720

Note: Components may not sum to totals because of rounding. Footnotes appear at the end of the table.

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Millions of dollars

1. Factors Affecting Reserve Balances of Depository Institutions (continued)

Millions of dollars

Reserve Bank credit, related items, and reserve balances of depository institutions at Federal Reserve Banks	Averages of daily figures			Wednesday
	Week ended 18-Sep-13	Change from week ended		18-Sep-13
		11-Sep-13	19-Sep-12	
Currency in circulation ¹⁵	1,205,074	- 2,441	+ 80,013	1,204,998
Reverse repurchase agreements ¹⁶	92,828	+ 240	- 2,262	93,020
Foreign official and international accounts	92,828	+ 240	- 977	93,020
Others	0	0	- 1,286	0
Treasury cash holdings	144	+ 2	+ 36	152
Deposits with F.R. Banks, other than reserve balances	100,392	+ 28,444	- 25,289	148,661
Term deposits held by depository institutions	11,662	+ 11,662	+ 8,622	11,662
U.S. Treasury, General Account	48,099	+ 9,548	- 16,617	60,914
Foreign official	8,740	- 254	+ 3,180	8,874
Other	31,892	+ 7,489	- 20,473	67,211
Other liabilities and capital ¹⁷	65,971	+ 2,798	- 1,275	63,858
 Total factors, other than reserve balances, absorbing reserve funds	 1,464,408	 + 29,043	 + 51,221	 1,510,688
 Reserve balances with Federal Reserve Banks	 2,293,383	 + 27,552	 + 840,068	 2,254,032

Note: Components may not sum to totals because of rounding.

¹ Includes securities lent to dealers under the overnight securities lending facility; refer to table 1A.

² Face value of the securities.

³ Compensation that adjusts for the effect of inflation on the original face value of inflation-indexed securities.

⁴ Guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae. The current face value shown is the remaining principal balance of the securities.

⁵ Reflects the premium or discount, which is the difference between the purchase price and the face value of the securities that has not been amortized. For U.S. Treasury and Federal agency debt securities, amortization is on a straight-line basis. For mortgage-backed securities, amortization is on an effective-interest basis.

⁶ Cash value of agreements.

⁷ Includes credit extended by the Federal Reserve Bank of New York to eligible borrowers through the Term Asset-Backed Securities Loan Facility.

⁸ Refer to table 4 and the note on consolidation accompanying table 9.

⁹ Refer to table 5 and the note on consolidation accompanying table 9.

¹⁰ Refer to table 6 and the note on consolidation accompanying table 9.

¹¹ Refer to table 7 and the note on consolidation accompanying table 9.

¹² Dollar value of foreign currency held under these agreements valued at the exchange rate to be used when the foreign currency is returned to the foreign central bank. This exchange rate equals the market exchange rate used when the foreign currency was acquired from the foreign central bank.

¹³ Includes accrued interest, which represents the daily accumulation of interest earned, and other accounts receivable. Also, includes Reserve Bank premises and equipment net of allowances for depreciation.

¹⁴ Revalued daily at current foreign currency exchange rates.

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Millions of dollars

15 Estimated.

16 Cash value of agreements, which are collateralized by U.S. Treasury securities, federal agency debt securities, and mortgage-backed securities.

17 Includes the liabilities of Maiden Lane LLC, Maiden Lane II LLC, Maiden Lane III LLC, and TALF LLC to entities other than the Federal Reserve Bank of New York, including liabilities that have recourse only to the portfolio holdings of these LLCs. Refer to table 4 through table 7 and the note on consolidation accompanying table 9. Also includes the liability for interest on Federal Reserve notes due to U.S. Treasury. Refer to table 8 and table 9.

Sources: Federal Reserve Banks and the U.S. Department of the Treasury.